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The American
Economic Review

Vol. XXII, No. 1

SUPPLEMENT

March, 1932

Papers and Proceedings
of the
Forty-fourth Annual Meeting
of the
American Economic Association

WASHINGTON, D. C.

DECEMBER, 1941

Edited by the Secretary of the Association

Publication Office: 459 Ahmari Street, Menasha, Wis.

Executive Office: American Economic Association, Northwestern
University, Evanston, Ill.

Editorial Office: 222 Charles River Road, Cambridge, Mass.

Entered as the post office at Menasha, Wisconsin, as second class matter, September 26,
1910, and as special delivery postage provided for in the Act of February 26, 1911, the
Act of March 3, 1909, section 1102, U. S. Code, and Act of October 3, 1917.

Price, \$1.00

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Publication Offices: Menasha, Wisconsin, and Evanston, Illinois
Subscriptions: American Economic Association, Evanston, Illinois

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PROGRAM OF THE FORTY-FOURTH ANNUAL MEETING

MONDAY, December 28, 1931

10:00 A.M. ROUND TABLE CONFERENCES (Joint meeting with the Business Historical Society)

1. *Private Enterprise in Economic History*

Chairman: E. L. Bogart, University of Illinois.

DISCUSSION: N. S. B. Gras, Harvard University; William Jaffé, Northwestern University; Edwin F. Gay, Harvard University; I. Lippincott, Washington University; Carter Goodrich, Columbia University; F. L. Ryan, University of Oklahoma; Thomas P. Martin, Library of Congress.

2. *Shorter Working Time and Unemployment* (Joint meeting with American Association for Labor Legislation)

Chairman: N. A. Weston, University of Illinois.

DISCUSSION: T. N. Carver, Harvard University; S. M. Levin, College of the City of Detroit; J. P. Frey, American Federation of Labor; E. H. Johnson, Emory University; T. R. Snively, University of Virginia.

3. *Quantitative Economics* (Joint meeting with Econometric Society)

Chairman: Irving Fisher, Yale University.

DISCUSSION: J. H. Rogers, Yale University; Malcolm C. Rorty, Lusby, Maryland; Mordecai Ezekiel, Federal Farm Board; R. B. Westerfield, Yale University; C. O. Hardy, Brookings Institution; E. J. Working, Stanford University; Z. C. Dickinson, University of Michigan; W. M. Persons, New York City; W. Leontief, National Bureau of Economic Research.

1:30 P.M. FIRST SESSION (Joint meeting with the American Statistical Association and the American Association for Labor Legislation)

Presiding Officer: Joseph H. Willits, University of Pennsylvania.

General Topic: *Technological Change as a Factor in Unemployment.*

Papers: Alvin H. Hansen, University of Minnesota; Harry Jerome, University of Wisconsin; Sumner Slichter, Harvard University.

DISCUSSION: Ewan Clague, Community Council of Philadelphia; Royal H. Montgomery, Cornell University; Boris Stern, U. S. Bureau of Labor Statistics; Albion G. Taylor, College of William and Mary.

5:00 P.M. MEETING OF THE EXECUTIVE COMMITTEE

8:00 P.M. SECOND SESSION

Presiding Officer: M. B. Hammond, Ohio State University.

General Topic: *Economic Organization and the Control of Industry.*

Papers: H. I. Harriman, New England Power Company, Boston, Massachusetts; R. G. Tugwell, Columbia University.

DISCUSSION: L. L. Lorwin, Brookings Institution; R. A. Flanders, Lampson and Jones Company, Springfield, Vermont; John G. Ohsol, Amtorg Trading Corporation, New York City; W. L. Thorpe, Amherst College.

TUESDAY, December 29, 1931

9:00 A.M. BUSINESS MEETING—Reports of Officers and Committees, etc.

10:00 A.M. ROUND TABLE CONFERENCES

1. *Institutional Economics*

Chairman: W. H. Kiekhofer, University of Wisconsin.

DISCUSSION: J. M. Clark, Columbia University; P. T. Homan, Cornell University; H. M. Fletcher, University of Pittsburgh; M. Wasserman, University of Illinois.

2. *Elasticity of Demand as a Useful Marketing Concept* (Joint meeting with the National Association of Teachers of Marketing and Advertising)

Chairman: E. D. McGarry, University of Buffalo.

DISCUSSION: Neil H. Borden, Harvard University; R. S. Vaile, University of Minnesota; J. E. Boyle, Cornell University; Hugh E. Agnew, New York University; Donald R. Cowan, Swift and Company, Chicago; J. F. Pyle, Marquette University; Wells A. Sherman, U. S. Department of Agriculture.

3. *Investments of Life Insurance Companies* (Joint meeting with the American Statistical Association)

Chairman: Solomon S. Huebner, University of Pennsylvania.

DISCUSSION: Robert Riegel, University of Buffalo; Samuel H. Nerlove,

University of Chicago; D. C. Rose, Scudder, Stevens and Clark; M. C. Rorty, Lusby, Maryland; H. D. Corey, College of William and Mary; J. L. Mahoney, University of Pittsburgh.

12:30 P.M. ROUND TABLE CONFERENCE

1. *Real Estate in the Business Cycle*

Chairman: Richard T. Ely, Institute for Economic Research.

DISCUSSION: Richard T. Ely, Institute for Economic Research; J. R. Riggleman, U. S. Department of Commerce; Ernest M. Fisher, University of Michigan; W. C. Clark, Queens College.

2:30 P.M. THIRD SESSION (Joint meeting with the American Political Science Association)

Presiding Officer: Felix Morley, Brookings Institution.

General Topic: *Investments and National Policy of the United States in Latin America.*

Papers: Max Winkler, Bertron, Briscoe and Company, New York City; W. W. Cumberland, Wellington and Company, New York City.

DISCUSSION: V. S. Clark, Library of Congress; Walter H. C. Laves, Hamilton College; J. R. Mez, University of Oregon; B. H. Williams, University of Pittsburgh; Lawrence Dennis, New York City.

8:00 P.M. FOURTH SESSION (Joint meeting with the American Sociological Society and the American Statistical Association)

Presiding Officer: Hon. Ray Lyman Wilbur, Secretary of the Interior.

Presidential Addresses: Emory S. Bogardus, American Sociological Society;¹ Ernest L. Bogart, American Economic Association;² William F. Ogburn, American Statistical Association.³

WEDNESDAY, December 30, 1931

9:00 A.M. BUSINESS MEETING—Election of Officers, etc.

10:00 A.M. FIFTH SESSION

Presiding Officer: Ray B. Westerfield, Yale University.

General Topic: *Recent Changes in Banking.*

Papers: James W. Bell, Northwestern University; W. E. Spahr, New York University.

DISCUSSION: F. A. Bradford, Lehigh University; G. W. Dowrie, Stanford University; J. F. Bell, Temple University; H. H. Preston, University of Washington.

2:30 P.M. SIXTH SESSION

Presiding Officer: W. M. W. Splawn, American University.

General Topic: *The Changing Character of the Transportation System.*

Papers: J. B. Eastman, Interstate Commerce Commission; Stuart Daggett, University of California.

DISCUSSION: M. L. Fair, Temple University; H. C. Kidd, University of Pittsburgh; S. Peterson, University of Michigan; D. P. Locklin, University of Illinois.

¹ Will be published by the American Sociological Society.

² Will be published in the March, 1932, issue of the *American Economic Review*.

³ Will be published by the American Statistical Association.

THE purpose of the American Economic Association, according to its charter, is the encouragement of economic research, the issue of publications on economic subjects, and the encouragement of perfect freedom of economic discussion. The Association as such will take no partisan attitude, nor will it commit its members to any position on practical economic questions. It is the organ of no party, sect, or institution. Persons of all shades of economic opinion are found among its members, and widely different issues are given a hearing in its annual meetings and through its publications. The Association, therefore, assumes no responsibility for the opinions expressed by those who participate in its meetings.

F. S. DEIBLER

Secretary

ROUND TABLE CONFERENCES

PRIVATE ENTERPRISE IN ECONOMIC HISTORY

E. L. BOGART, *Chairman*

N. S. B. GRAS.—The size of the business unit is, of course, relative to time and place. The business man who once loomed large, because bigger than his fellows, now appears to us, in an age of big things, to be small indeed.

The traveling merchant, growing up with town economy, is perhaps the first business man who could be thought of as falling within our present interest. He aimed at being a wholesaler, but was somewhat hampered by town regulations and even more by the circumstance of his traveling about. The rise of a class of sedentary merchants in the well-developed towns of the ancient and medieval periods tended to drive the first type of merchant out of existence. This new class had advantages in capital and management and in the gradual diversification of its functions to include insurance underwriting, common warehousing, common carriage, and banking.

Following the industrial revolution came a new type of specialized business man, a pioneer like the traveling merchant. He needed a great deal of technological skill, larger amounts of capital, and special application to one set of problems. Such were Slater, Baldwin, Vanderbilt, and Cunard.

The competition of the last generation has led to combinations, vertical and horizontal, in which not special skill has been the requisite but managerial capacity. Joint-stock companies and financial institutions have provided the capital. A growing class of experts has taken charge of particular managerial jobs. Schools of business and institutes of technology are furthering this.

Thus there seems to have been a swing in history from the specialist to the non-specialist, to the specialist again and then once again to the non-specialist.

WILLIAM JAFFÉ.—Both economic history and economic theory deal with an abstraction. Economic life is continuous with all other phases of social existence—the political, the legal, the religious, the technological, the sentimental, the aesthetic, and so on. Consequently when we select for special treatment certain more or less homogeneous elements, say economic elements, out of the intricate complex which makes up the whole of social life, we are performing an act of abstraction. It does not make any difference whether we look upon these elements as logically concatenated in a system of causes irrespective of time and place, or whether we look upon them as temporally concatenated in an historical sequence; in either case the very thing we are looking at, economic life, is an abstraction. The economic theorist is always conscious of this fact. The economic historian, however, generally labors under the illusion that he has nothing to do with abstraction, simply because the subject matter of his studies appears more positive and concrete. In fact, the subject matter of economic history is no less abstract, no less conceptually torn from the sum total of reality than the subject matter of economic theory. Unless the economic historian makes it a point consciously to cope with the specific problem of abstraction which he faces he is bound to work blindly. He can only guess; he cannot know that what he is studying is economic

history. It may be something or anything else in the whole wide expanse of sociological phenomena.

This leads us to the question: "How delimit the field of economic history?" Obviously the act of establishing frontiers, where none exist in nature, must be arbitrary; but it need not for that reason be vague, capricious, or irrational. What principle would it be best to invoke? It would seem best, would it not, to invoke the economic principle in determining the field of economic history? This is exactly what Karl Bücher does in the opening paragraphs of his *Volkswirtschaftliche Entwicklungsstufen*. There he defines the adjective "economic" as descriptive of those relations between man and his environment by which man seeks to attain the greatest possible satisfaction at the least possible cost, in terms of sacrifices. Moreover, Bücher endows the word "economic" with a social content, since the maximizing of satisfactions and the minimizing of real costs have in human experience been best accomplished through organized association. Another way one may define the adjective "economic" is to make it descriptive of those social relations which arise from the necessity of only partially satisfying wants, since means for complete satisfaction are lacking. The social mechanism whereby economic ends are realized has been, at least in modern times, the market, in which the agents are mainly individual enterprises. Would it not seem logical, therefore, to limit the field of modern economic history to those social phenomena which may be translated into terms of an exchange of goods and services in which the traders actuated by the motives of private enterprise try to get as much as possible for as little as possible?

The most important service which the definition of the field of economic history in terms of the economic principle would perform would be to make possible the use of a key to modern economic history.

What do I mean by a key? I mean a rational device for unlocking the secrets of the causal nexus between events. Too often has the economic historian fallen victim to the fallacy of *post hoc ergo propter hoc*. There are two ways of escaping this fallacy. One is to avoid the problem altogether, by setting down simply a faithful record of events in a vaguely determined category without any reference to links between events. This would give us economic chronicles, the raw or semicooked data of economic history. It does not give us economic history. The other way is strictly to isolate some particular aspect of the flow of events which lends itself to causal analysis. Then the economic historian must attempt to identify given historical sequences with established universal statements of invariable causal relationships. This is, after all, the essence of the operation by which all causal nexus are discovered. If it be asked where shall these statements of invariable causal relationships be found, I should reply in the economic theory of the exchange of goods and services. Professor Werner Sombart's opinion to the contrary notwithstanding, Bishop Whately's science of catallactics—to be sure, in its modern form—is still a mine of precious ore from whence the economic historian may extract the metal to forge the key of his understanding.

It may be objected that if the field of economic history be limited as I have indicated, then, indeed, though it be raised to a plane of abstraction

where the light of understanding may penetrate all, it will be too remote from reality. It will be merely an oversimplified travesty of the movement of events. It may be argued, therefore, that the economic historian should portray history as life and not as a geometrical demonstration in which one of the dimensions is time. To this I should reply that we are faced with a dilemma: we can either have full description without understanding, where each one may pick some facts to support what he wishes to believe, or we can dissect the sum total of reality according to an ideal plan conceived for the purpose of revealing the causal interlocking of successive occurrences. Which horn of this dilemma I choose is evident.

The limitation of the field of economic history to an area where the catallactic key will work is not as narrow as it at first appears. In fact, it often includes more than the economic historian ordinarily looks for. In order that the catallactic key may function it is necessary to have not only records of prices of goods but also records of quantities of goods traded. Now, M. Labrousse, in a recent article in the *Revue d'Histoire Economique et Sociale* on the price of grain in France in the eighteenth century, criticizes older records of prices, displays newly unearthed records, calculates averages, and plots movements of prices; but he explains nothing and can explain nothing without reference to the quantities of wheat sold, and to the effect of these quantities on prices. If the economic historian is not content simply with discovering and chronicling prices (I am not unaware that this alone is a Herculean task) but if he wishes to explain the prices recorded, then he is bound to examine the extent, the functioning, and the devices of the market where the prices are cried. He is bound, furthermore, to set forth whether these prices are determined by competition, by monopoly, or by public regulation. And since the degree of arbitrariness which can possibly enter into the public regulation of prices is distinctly limited, an explanation of prices resolves itself, in final analysis, into an application of the logic of competitive or monopolistic price determination.

Economic history, restricted to economic phenomena, also includes studies of the rise of the business man. The special propensities of the modern business man have probably always existed just as the special propensities of the ascetic, the marauder, and the saint even now exist; but the opportunities for the development, practice, and fruitful exercise of these propensities do not always exist in the same measure. Though economic history properly speaking is more concerned with the vicissitudes of these opportunities (that is, with the rise and development of the market) than with the calculating soul of the business man, still it is impossible to follow the working out of the economic principle without giving attention to the human agents who make this principle real. What I object to is the point of view which attempts to forge the key of causal analysis from such flimsy stuff as the bourgeois spirit which is conceived as penetrating the soul of man at the close of the mediaeval epoch by an act of special creation.

Nor do the limitations which I propose for economic history exclude such studies as those of the industrial revolution or of technological advance in industry and agriculture. Technological progress should, however, be re-

garded only from one point of view; that is, from the economic point of view. Economic history is not concerned with tracing the progress of mechanical engineering; it is concerned only with revealing how a given type of cotton loom, for instance, enables the entrepreneur to exchange his funds available for fixed and circulating investments more advantageously than he could with any other cotton loom known.

Thus modern economic history, conceived in terms of the exchange of goods and services, gives us, to be sure, an idealized and abstract picture; but not so idealized and abstract as to lose all semblance of reality. On the contrary, we still have a complex ever-changing pattern made up of spiritual, social, and technological entities.

The proposal that I am making to restrict the field of economic history to an area where the logic of the exchange of goods and services may act as a key to causal analysis is frankly a tentative one. It is offered as a solution, not as the solution of a neglected problem—the problem of establishing causal links between events on rigorously logical lines. I should like to close by quoting Abbé Galiani who hoped that the thesis developed in his *Della Moneta* would “be attacked with reason and honesty by anyone who had a different and better opinion.”

EDWIN F. GAY.—Economic history furnishes a long commentary on the vicissitudes of the persistent struggle between the principles of free competition and of a controlled economy. The craft guilds of the mediaeval towns were decidedly opposed to free competition, yet the very number of their regulations indicated the growth of competition. From the many phases of the succeeding movement toward control, three points were presented for discussion.

The rise of the merchant-entrepreneur, notably in the textile industries, with expanding competition in a wide market, led to steps toward control within the individual enterprise. Increasing emphasis was placed upon the time element and upon contracts for future delivery, which were binding together all the factors in the industry. But the entrepreneur found it difficult to enforce prompt delivery upon the home-workers of the prevailing system of industry. Partly for this reason the masters turned to the factory system.

In the competition for the consumers' dollar it has been ordinarily held that demand, in itself indefinitely expansible, is limited only by purchasing power. But economic history shows that over long periods of time human wants settle into fixed or stable patterns of demand, and even under the stimulus of modern conditions this pattern offers “consumer-resistance.” The inherent viscosity of the demand, as found in large social groups, should be taken into account, as well as the limits of purchasing power.

With the modern tendency toward reducing the field of free competition by various forms of control, a serious error is made when rigidity is mistaken for stability. Stability means the maintenance of a balance between the shifting elements of the economic environment. It is not by rigidity of prices or of business policy, but by a watchful adjustment of prices and policies to the constantly changing situation that stability may be attained.

I. LIPPINCOTT.—An age of invention is of necessity an age of substitutes,

although in all cases the new discovery does not immediately exert a substitute effect.

We may think of substitutes as falling into at least three classes: (a) Substitute industries, as for example aniline for vegetable dyes; synthetic perfumes for those manufactured from flowers, herbs, and secretions of animals; beet for cane sugar, and corn sugar for both under some competitive conditions; coal gas for animal oils, and kerosene and subsequently electric light for the earlier illuminants; artificial leather, rubber, materials for twine and textile fabrics to replace the natural raw materials; synthetic plastics manufactured from derivatives of casein, phenol, cellulose, and urea to replace a considerable list of products made from wood, clay, and even iron and steel. These are only a few illustrations.

(b) Substitute services, as transportation by pipe line for crude and refined oil, and of motor trucks and busses as partial substitutes for railway service; of automobiles and busses in urban transportation for street cars; and in the retail trade of package goods instead of the old bulk system of distribution.

(c) Substitute processes, as with the Bessemer, Open Hearth, and others as more modern methods of manufacturing steel; and various processes for the production and refining of non-ferrous metals. In this class belong a long list of substitute processes in the manufacture of food products, of petroleum, textiles, not to mention them all.

The primordial effect of the development of substitutes is to widen the scope of the competitive system, to open new avenues of attack on prospective monopoly, to offer consumers a greater range of choice in the selection of wares, and continually to liberate him from restrictions which might be laid upon his market. Second, the competitive effect of substitutes, once they have made an appearance, leads to the prying into the secrets of nature to discover processes for the manufacture of goods and thereby to reduce cost and render a better service. This applies both to mechanical methods and to final consumer's goods. Hence the great industrial importance of chemical and physical research. Moreover, the development of substitutes often causes a considerable shift in the demand for raw materials. This is particularly the case where the new product serves the more exacting needs of all classes of consumers because the raw material itself must satisfy more or less exact specifications.

With the appearance of the substitute industries the defense system of industrial organization begins to work. The substitute increases competition and threatens to dislodge labor and capital in the older industries. This condition is met either by the older industries engaging in research, or in the pooling of discoveries, or in combination. Thus the new combination movement, which is not an integration, but a branching out into nonrelated lines, frequently is designed to absorb the substitute industries.

Finally the constant appearance of substitute industries constantly supplies a disturbing novelty to the industrial system. It is an element in industrial instability, in technological unemployment, in the constant need for junking equipment, and in the waste involved in the dislocations of capital and labor.

These conditions suggest obstacles to any effective system of industrial

planning. Under the present system industrial uncertainty is one of the penalties we pay for progress. No doubt the advance could be made more orderly by some system of planning, but it would result in the postponement of many new services, and goods, which the consumer has been educated to expect under the present system. And such planning would not be without a considerable money cost.

CARTER GOODRICH.—My point follows by analogy from the theory underlying the emphasis on private enterprise in this discussion. Just as economic historians have treated the activities of government more fully than those of individual businesses, since the former leave the more convenient records, so also we have given relatively too much attention to labor organizations and too little to the individual worker. We have many trade union histories but few adequate treatments of the other aspects of workers' lives. The explanation is a similar one. Unions adopt constitutions and sign agreements, but ordinary workers leave few such written traces; and the evidence we should most desire often does not exist at all.

What, then, can be used? For current inquiries, field work, of course. For the recent past, the results of such studies and also wage comparisons. Other evidence may be gained from company records, such as those collected by the Business Historical Society; by re-working union material with broader questions in mind; from material collected by modern social historians; occasionally even from physical remains; and, finally, from a source economists frequently overlook, the accounts of workers' lives in imaginative literature.

F. L. RYAN.—While the large graduate schools, with their excellent library facilities, are best fitted to carry on certain types of research in economics, other institutions have unexcelled opportunities in the use of the personal interview as a primary or supplementary research tool. This type of material is particularly valuable to those students who are carrying on local or regional studies. In the Middle West, many valuable studies of this kind can be made. Among those which are worthy of the attention of scholars may be included economic, sociological, and anthropological studies of the Indian, studies in land economics, of early trade, and of labor problems arising out of the presence of the Indian, the Negro, the Mexican, and the hobo.

THOMAS P. MARTIN.—One source of material for research in economic and business history is productive enterprises (that is, agricultural, mining, lumbering, manufacturing, etc.) responsive to markets. Representative business organizations (companies, firms, corporations, or of whatever category) in each section of the nation during the various stages of its history have created and accumulated, beginning with the founder or founders, important series of correspondence (often kept as private papers), directors' minutes, special and periodic reports, account books, etc.; also, files of circular letters, prices current, advertising, etc. Such sets of letters and papers should be carefully collected in each section for various periods and types of enterprises. An important but incomplete collection may be supplemented by discoverable remnants of similar collections.

Marketing and transportation enterprises have likewise left characteristic collections, the important series of which should be carefully collected and

preserved. The extent to which the great mass of routine paper shall be preserved from destruction depends in any case upon its merits and the space available for such purpose. Much may be destroyed, especially in the event of obvious duplication.

Financial houses, particularly the dominant ones of each generation of the section or nation, will always be the subjects of inquiry; and the important series of the papers of such institutions, though defective on account of the large amount of oral negotiation always carried on, should be preserved with particular care, along with the private and most confidential financial diaries, journals, and ledgers.

Organized groups or associations of business enterprises of all kinds (manufacturers, exporters, traders, bankers, tariff associations, free trade associations, related political parties, social, humanitarian, philanthropic, educational, and religious organizations) have left behind materials which may in some cases be richest for the study of economic trends and business policy; but the archives of such organizations, lacking permanent homes, have often met with partial if not total destruction. They are most often found with the private papers of some responsible leader. The manuscripts should be supplemented by the careful collecting of the fugitive publications (circulars, broadsides, pamphlets, etc.) of the organization. Committee minutes and account books give clues to the fugitive printed material.

The private papers of business leaders and of those with whom they corresponded, from the nation's president down, are most important.

SHORTER WORKING TIME AND UNEMPLOYMENT

N. A. WESTON, *Chairman*

T. N. CARVER.—Four errors are found in the reasoning of those who advocate the reduction of the working time of labor as a remedy for unemployment. First, the staggered week or the staggered day does not reduce unemployment; it only smears it more evenly. If it gives employment to more men it also inflicts unemployment on more men. Instead of having some employed all the time and others none of the time, it has all workers employed a part of the time and all of them unemployed a part of the time. It may be a good thing to do, but it does not increase the sum total of employment nor decrease the sum total of unemployment.

Second, more leisure does not necessarily increase the demand for goods. Even if it should increase the desire for goods, that desire is not an effective demand unless it is accompanied by the ability to purchase. Besides, there is no reason for believing that more leisure would even increase the desire for goods. It is quite possible that the leisure would be spent in the cultivation of the arts and graces of leisure, in visiting museums, libraries, and art galleries, or hikes, games and inexpensive amusements. If the cult of leisure should result in the popularization of Gandiism, humanism or any of the highbrowisms, it would decrease the desire for material goods. If it should result in more gardening, more work about the home in making or repairing furniture, painting and repairing the house, and other useful avocations, it would cut down the demand for the products of our wage-paying industries.

If, therefore, men should produce just as much in the shortened day or week as in the longer one, there would be no increase in the demand for goods to furnish a solution of the problem of unemployment.

Third, if men are to receive the same wages for a reduced product per worker it will raise the money cost per unit of product. That it would reduce the labor cost (in terms of money) is merely a matter of long division. It would also increase the capital cost unless labor works double shifts where it now works single shifts. Unless it works double shifts, the working time of capital as well as of labor will be reduced when the shorter day or week is adopted. If it takes more laborers to turn out a given volume of product, it will also take more machines, engines, buildings, etc.

When the cost of producing a unit of product is thus increased, the price of the product must rise in all except the monopolized industries. When the cost of the product rises, people whose money incomes have not been increased, cannot buy so many units of product. There will not be so large a volume of production to be carried on. Even though each worker produces less, it may not take any more workers to produce the reduced volume than it took before.

Besides, even though the money wages of workers remain the same, when the prices of products go up, their real wages go down. Any increase in the number of workers employed will be associated with, if not dependent upon, this reduction in real wages. The same results would have been secured by a

reduction of money wages in the first place without any reduction in the product per worker. That would have reduced the cost and the price per unit of product, wage workers could buy approximately as many units as before, while others could buy more units. This would call for a larger volume of production and employ more workers, though at lower money wages. If, under the shortened working time, with reduced product but the same money wages per worker, more men could be employed, it would be at the expense of lower real wages.

Fourth, it is a mistake to assume that the same results would follow when the shortened working time is adopted in all industries as when it is adopted in one or a few. One industry might reduce its product per worker, either by shortening the working time, or by slowing down, without greatly reducing the volume of its production or the prices of the goods which its own workers have to buy. But when all industries adopt the same plan, the cost of all products, except those produced under noncompetitive conditions, will go up; all money wages and incomes which have not been increased, will buy less; there will be a smaller volume of production, and a fall in the real wages of labor.

If, as the purchasing power of money wages falls, money wages are advanced in order to keep real wages at the old level, that will send the cost of production still higher, reduce the quantities that can be purchased by those who are not wage workers, call for a still smaller volume of production, and completely nullify any supposed advantage to the unemployed.

Samuel M. Levin read a paper on the Ford unemployment policy. [As this paper is being briefed by the American Association for Labor Legislation, an abstract does not appear here. Editor]

JOHN P. FREY.—Doctor Carver's paper on the shorter work day or work week, is a carefully thought out consideration of the subject and in complete harmony with the arguments advanced by the classical economist. With respect to the logic, the carefully reasoned analysis, and the conclusions, I have no particular criticism to make. One feels, however, that unless all the elements of a problem are equally examined and weighed, logical reasoning may lead to illogical conclusions.

Some years ago the metal workers in one trade in a western city began to organize for the purpose of improving their terms of employment. They wanted a shorter work day, their goal being eight hours. The metal manufacturing employers in that city had adopted a policy which precluded any conference with representatives of organized labor. But sentiment for an eight-hour day had developed generally in the community, the public became interested, and appealed to the secretary of the employers association not to refuse a conference with the local union's representatives.

The first spokesman for the local union at the conference was a humanist. His argument for the shorter work day was based upon the willingness of wage earners to share what they had with the less fortunate. Reducing the hours of labor from nine to eight would give a larger number of men em-

ployment, and the members of this trade would be most happy knowing every one was employed.

The last speaker for the union attacked the question from a different angle. He had gathered industrial statistics which indicated that in plant after plant the establishing of an eight-hour day had not reduced the per capita production, and in some instances had increased it. He concluded that the eight-hour day would be fully as beneficial to the owners of the metal working industries as it would be to the workmen.

In reply the secretary of the employers' association said:

We are less able now to consider granting you an eight-hour day than we were before. Some of you have argued that the eight-hour day would make it necessary for us to employ an additional number of workmen. One of you has endeavored to prove that if we establish the eight-hour day, production would increase to such an extent that we would need less workmen than we have at present. Until you have harmonized your own views as to the effect of an eight-hour day, it will be impossible for the employers of this city to grant your request.

Before giving some statistics which must be presented in connection with shorter working hours, I want to emphasize this all important fact that our country is not handicapped because of any incapacity to produce. Our per capita capacity for industrial production has been greater than that of any other country for a number of years.

Studies made by the Federal Bureau of Labor Statistics indicate that if all of our industrial plants had been operated at their full capacity, three hundred days per year, a four-hour day would have resulted in approximately the same volume of production as we had during 1927-28. The problem of the shorter work day therefore is not affected by the equipment we have for industrial production.

We do not see how it is possible to discuss shorter working hours per day and fewer days per week, without going deeply into the question of wages and the distribution of wealth. Both are involved by modern methods of production, the radical and revolutionary methods which engineers and other scientists have applied.

A generation ago most production was the result of heavy manual labor, manual dexterity, and craft skill. These three important factors are being rapidly eliminated. Massive machinery has displaced the heavy physical labor formerly required. Automatic and semiautomatic machinery produces work which has displaced enormous numbers of highly skilled wage earners. Chemical processes are accomplishing the same result. One economist at these meetings who has recently studied the famous Smith plant in Milwaukee, said, that owing to the marvelous mechanical inventions which had been introduced for the making of pipe and automobile chassis, 95 per cent of the labor required ten years ago had been dispensed with.

These revolutionizing methods of production have only begun to exert their influence. Even now during this serious depression, engineers and other scientists are working out methods of production which have for their purpose increasing productivity, but which at the same time are reducing the number of workmen required.

Returning to the subject of shortening the hours, it must be apparent that equal, if not greater, importance, is the question of economically sound wages. But few economists are publicly stressing the part which economically sound wages played in bringing about the present depression in the United States. A few statistics may be illustrative.

In 1928, the total value of our manufactured products was \$60,500,000,000. Five years later, in 1929, it was \$69,400,000,000. In that year the total value of our manufactured products was practically \$9,000,000,000 more than it had been in 1928.

In 1928 the total volume of wages paid in our manufacturing industries was \$11,000,700,000. In 1929 it was \$11,421,000,000. The volume of wages paid utterly failed to keep in step with the volume and value of manufactured products.

Perhaps what was taking place is presented in an even more startling manner by the statement of the total volume of wages paid in the United States in 1928, the peak year before the collapse. In that year the total volume of wages, that is the wages paid to all agricultural, transportation, commercial, industrial and all other wage earners, was \$649,000,000 less than in 1927. The wage earners, who with their dependents constitute 80 per cent of the population, were \$649,000,000 less able to purchase the product of our industries than they had been the previous year.

For a long time a majority of our economists and our production engineers have well have considered the laborer almost solely from the standpoint of a producer. It is only recently that they have begun to realize that his function in society as a consumer is of equal importance as the part he plays as a producer. It is the wage earner and his dependents who constitute the bulk of the American market, and it is on the American market that our industries must depend for the sale of over 90 per cent of all that the nation produces.

It is a loss of time, and of no practical value, to discuss the theory of shortening the hours of labor, unless there is included a thoroughgoing consideration of the part which wages must play. In 1925, the convention of the American Federation of Labor endeavored to place the question of wages upon a sound economic basis. The convention declared that "serious injury would result to industry and commerce, unless the real wage, the purchasing power of wages, increases in proportion to industry's increasing capacity to produce."

Had our industrial and financial leaders applied this sound economic basis to wages, the consuming capacity of the home market would have been maintained, and while we would have been influenced by unfortunate conditions in other countries, we would not have been plunged into the frightful depression which has afflicted us since 1929. The time for discussing Doctor Carver's paper precludes a more adequate examination for his thesis. I have endeavored to make it evident that underlying the question of shorter hours of labor, is the all important question of a much more economically sound distribution of the annual volume of wealth created by our industries.

EDGAR H. JOHNSON.—Due in part to mechanical inventions and in part to more efficient organization of labor, a notable increase in the productivity of industry has been made in the last few decades. It is certainly desirable

that we use the new powers of industry to secure an increase and a wider diffusion of desirable goods and more leisure for the workers.

Every one recognizes that under certain conditions an increased efficiency of labor may sometimes more than compensate for reduced hours. While granting this, Professor Carver's general conclusion, with which I agree, is that the mere shortening of the time of work will not in itself solve the problem of unemployment or the larger problem of maldistribution. His method of reasoning is abstract and deductive and he makes the assumptions usual in economic discussions of competition and of fluidity of the factors of production (labor, capital, etc.). If these assumptions of competition and fluidity were indeed fully realized it is pretty clear that we should never have any serious problem of unemployment for either labor or capital. One of the hypotheses considered, that of a shortened working time with lowered productivity but no reduction in money wages, is so clearly opposed to one of the consequences of full competition, viz., a wage determined by marginal product, that short space might have been used in disposing of it. In behalf of the deductive method it may of course be said that even in times of depression and unemployment the forces of competition do operate though not so efficiently as usual, that there is a tendency for distribution under competition to be according to marginal product, that the best the economist can do is to deal with certain real forces and tendencies which are generally recognised, that no one understands or can appraise all the forces operating in the economic world, and so on.

As to the staggered week, with the division of work and of wages among two shifts of laborers, much can be said for this as an alleviative measure. Thirty dollars of wages will bring more utility if distributed equally between two workers, A and B, than if A has full time work, receives full wages (\$30) and B lives on charity. Moreover, if A and B divide the work and the wages, each receiving \$15, there will probably be a larger demand for the necessities of life, such as food and textiles, than if A had full time work and B lived on charity. During times of depression it seems especially desirable that the effective demand for and the supply of necessities be maintained so far as is possible. The staggered week which tends to mitigate inequalities of income among workers will help to this end.

The most interesting possibility in connection with the lowering of hours of labor relates to the plan of double shifts of workers and a longer use of capital equipment. Not only will this allow for a smaller total investment of capital but it will permit in each plant the more extensive use of machinery. Consider, for example, a machine whose cost for interest and obsolescence is forty cents per day and whose cost for wear and tear is five cents for every hour of use. If this machine were used eight hours per day the cost would be eighty cents per day or ten cents per hour; if used for twelve hours (two shifts of six hours each) the cost would be \$1.00 per day or eight and one-third cents per hour. If the use of the machine was worth nine cents per hour it would be unprofitable to use it when the factory ran for eight hours per day but it could be used with advantage when it ran twelve hours per day. If the laborers should have more efficient machines to operate, their pro-

ductivity is thereby increased. Not only would the cost of the use of machinery per hour be lowered with double shifts but the cost of other overhead expenses would be similarly reduced. It is possible that the gains thus made might be used to increase both profits and wages and at the same time to lower the selling price of the commodity and thus extend the volume of production.

TIPTON R. SNAVELY.—In considering Professor Carver's paper it is necessary to bear in mind two essential facts. In the first place, he has analyzed the economic effects which would follow if a shorter working time were made universal throughout industry. Secondly, it should be noted that the discussion is based on well defined assumptions which are undoubtedly believed to be in close accord with the realities of the problem. On the basis of the premises laid down, Professor Carver's deductions are entirely logical and his conclusions would appear to be unassailable. His paper is excellent from the standpoint of its penetrating analysis as well as that of its breadth of treatment of the fundamental issues involved.

Professor Carver concludes that a mere shortening of hours, whether with or without a commensurate reduction in wages, will not really result in decreasing unemployment. If wages are decreased correspondingly with a reduction in the working time, the effect is merely to extend the existing unemployment to more working persons. The widely accepted opinion that more leisure will intensify the desire for goods, thereby raising the effective demand, is regarded as a *non sequitur*. Leisure is not an antecedent to higher wages, but is a consequence of lowered marginal utility from additional units of purchasing power previously derived.

It is at least plausible, however, that a shortened working day might result in a more effective utilization of capital through double, or even triple and quadruple, shifts. Through the doubt shift "some decrease in the unemployment of labor and some increase in the unemployment of capital would result." This is one of the most fascinating parts of Professor Carver's discussion. While the truth of this assertion may readily be admitted, the extent to which a realignment of labor and capital can be applied effectively will vary greatly in different industries. In certain industries, the multiple shift is already in operation; in others, a new arrangement could hardly be made (except very gradually) without overextending production and spoiling the market. If a given commodity, say a breakfast food, can be manufactured in sufficient quantities, under an eight-hour day, a change to a double shift of six hours each, with the same number of workers, would result in a daily production period of twelve instead of eight hours. This contingency has been accounted for by Professor Carver when he assumes that the quantum of capital applied will be reduced proportionately with a larger number of workers. When the necessary adjustments have had time to work out, the quantity of production will be the same.

The problem of decreasing unemployment becomes primarily one of increasing the total wage costs. Can an increase in the total return to labor be effected without expanding the total money costs of production? Here it seems to me that there is much significance in the final point of Professor Carver's

conclusions; namely, that a reduction of the working time in a small number of industries would have different results from those which would follow if the shortened working time were to become universal. Higher wage rates, as well as a shorter working day, have usually come first in specific plants and industries, complete adoption not being achieved until much later. So it is likely to be with the six-hour day. Professor Carver has shown that a reduction in the working period, with a resulting increase in employment, may be realized by a new combination of labor and capital. The question is, if it is proved feasible in individual industries to reduce the working period without a proportionate reduction in wages, can a more effective combination of labor and capital be found in other industries and the shorter working day gradually be made universal?

There would seem to be two possibilities for some increase in the return to labor, in the long run, thus making possible also some increase in employment. The first is by enlarging the total productivity, as a result of technical improvements and a more effective combination of the factors of production. The late Samuel Gompers testified before the Federal Industrial Commission in 1901 that employers who opposed the eight-hour day as impracticable in their particular occupations, found that it could be made practicable when it was forced upon them. While we know that technical changes in industry are responsible for much temporary unemployment and maladjustment, such changes constitute the surest hope for increased employment and higher wage levels in the long run.

It has been argued by some economists and others that a second possibility lies in the elasticity of the conventional standards of living and saving of those who derive a return from the other factors of production. Thus it is held that the return regarded as necessary on the part of the income receivers of interest and profits is to a considerable degree a subjective standard, and may be altered over long periods of time. While the wages fund is fairly inelastic in short periods it is more elastic in the long run. A psychological change may take place in the rate of return necessary to effect a given volume of savings. It is maintained that the "conception of an independent demand curve for labor, equally with that of an independent supply curve, definitely seems to break down." To the extent that this may possibly be true, some increase in wage costs might be brought about through a shortening of the working day and an increase in the number of workers employed.

FRANCIS D. TYSON.—Professor Carver deals in a convincing way from the general point of view with the theory of the shorter working day and week. If his basic assumptions of a largely competitive economic order are granted, the argument he weaves is devastating, and the outlook for reform dark.

But I wonder whether his intricate analysis really corresponds to the actual conditions in terms of which the problem is to be faced in American industry. The industrial scene is varied in a different way than his logical presentation would indicate. Leading firms in many industries turn out a considerable part of the product, and effectively limit competition. Many of these successful industries produce a large financial surplus, permitting ex-

perimentation in reduction of hours without "narrowing the field of employment of capital."

Professor Carver must have reviewed some such industries in the preparation of his interesting book, *The Economic Revolution in the United States*, in which he pointed out that typical organizations could provide "a saving wage," and allow employees stock ownership. He even expressed the belief, I think, that workers would become capitalists!

Mr. Frey pertinently relates the hours issue to the wage problem, and both to the increasing productivity of American industry. He might well add the advance in management technique to the improvement in mechanical and chemical processes as an outstanding cause of progress. Certainly, to refer to an example of change in hours, the steel industry moved from the two shift to the three shift or eight-hour basis, in continuous processes, with increased hourly pay, without appreciably increasing labor costs; and that industry might have shortened hours generally, as no doubt the Ford Company could have done, without much impairment of surplus.

The vastly increased accumulation of capital by industry, from undivided profits, rather than by individual saving, makes relevant the whole question of stabilizing industry through assuring a better balance between the rate of production increase, and the increase of purchasing power.

Dr. W. I. King has recently been quoted as indicating that the average real wage in American industry was not higher in 1928, near the end of the period of prosperity, than in 1923. I have here some interesting corroborative figures analyzing the course of real wages in New York state. When weighted by an available index of employment they indicate that in that great industrial area the rise in real wages was halted after 1925, but net surplus continued to mount.

We will need, it seems to me, much more factual research, and actual experimentation, before categorical statements and dogmatic conclusions from theoretic analysis are in order. The extension of the shorter work day and week, with a widening of the field of employment in American industry, may operate with much better results for stabilizing our economic system than Professor Carver is willing to admit.

QUANTITATIVE ECONOMICS

IRVING FISHER, *Chairman*

At this session three papers were read: one by Professor James H. Rogers on "The Absorption of Credit"; one by Colonel Malcolm C. Rorty on "Quantitative Factors in the Distribution of the Value Product of Industry"; and one by Dr. Mordecai Ezekiel on "The Relationship between Statistical Price Analysis and Mathematical Economics."

Professor Rogers' paper was a mathematical development and extension of the work of Chester A. Phillips, who had shown that an addition to the reserve by an individual bank did not, as was popularly supposed, result in increasing that individual bank's deposit liabilities by ten-fold (assuming a ratio of reserves to demand liabilities to be 10 per cent); that, instead, the increase of reserve and increase of deposits were substantially equal; and that the pyramiding occurred through the overflow from the individual bank to the other banks.

Professor Rogers gave a rigorous mathematical demonstration that the overflow from the banks receiving the funds would, in turn, cause an outflow from these banks to which the funds were communicated, and so on theoretically, *ad infinitum*. He demonstrated that, as a result of such converging series, equilibrium would be reached when the additional deposit liabilities of the banks as a whole had become ten times the additional aggregate reserve. All of this was developed on the assumption that the general expansion of loans and deposits led to no outflow of cash to circulation.

Professor Rogers also showed a substantially similar result as to loans and discounts. He further applied the theory reversely to deductions of funds instead of additions. In other words he showed how both inflation and deflation work cumulatively and how different was the initial effect on the individual bank from the final effect on banks as a whole.

Having treated mathematically the case in which the general credit expansion led to no increase and the general credit contraction to no decline in the money in circulation, he next turned to a similar treatment of the more usual cases in which such increases and decreases occur. In detail, he treated the special case in which the monetary circulation so adjusts itself as to maintain a constant ratio with deposits subject to check. Under such circumstances, the credit expansion of the banking system as a whole upon new funds available was shown to be somewhat less than four-fold instead of ten-fold as in the first case.

"Hence," he said, "the draft on our available credit resources from relatively minor cash-circulation demands is in general much greater than from reserve requirements for our huge deposit superstructure—a situation which becomes much more pronounced when Federal Reserve requirements are included." A similar result was found for contraction.

For the entire system, including the Federal Reserve banks, he showed that whereas in the first case (in which no cash flows to circulation) the net credit expansion was approximately thirty-fold, in the second case (of no net outflows to circulation) it was a little less than ten-fold; i.e., when each dollar in the Federal Reserve banks is utilized to the maximum.

From such considerations, Professor Rogers showed how in the boom period 1925-29, when circulation requirements continued nearly constant, the credit expansion was very great indeed without serious draft on Federal Reserve or other credit sources, while in 1917-20, when circulation demands increased continually and normally, similar credit expansions required much more of a credit base. He proceeded:

In inflation, a few ringleaders among the banks may by borrowing from the Federal Reserve banks start and maintain for a considerable period the whole upward movement. The expansion of their loans and deposits leads to cash overflows to other banks, which on the receipt of the new cash through ordinary business channels (i.e., through deposits) likewise expand quite naturally and normally and thus continue the credit expansion. The only alternative is to sit idle and receive an ever-increasing cash inflow and try to convince the boards of directors why the new money should not be put to work.

In deflation, an exactly reverse situation is met. The contraction of loans and investments by a few banks draws money from many others and their forced credit contractions make similar drafts on still others. Any bank not liquid enough to meet such drafts is forced to close. Hence, the scramble for liquidity. . . . In a period of general liquidation, plentiful money is an entirely different thing from easy money. A hard-pressed bank caught in a general deflation movement dislikes greatly to borrow from its Federal Reserve bank for two reasons: (1) Because of embarrassing questions usually asked by Federal Reserve authorities, and (2) because the appearance of such new borrowings in their balance sheets brings additional fears to already frightened depositors. Therefore, the alternative course of selling any remaining marketable bonds or paper is resorted to. Thus is explained much of the severe securities liquidation of recent months. The pushing out of funds by Federal Reserve banks through the purchase of bills and government securities should bring the necessary relief.

Professor Westerfield said in part:

No writer of his generation has had so great an influence in the presentation of the elementary theory of bank credit as has Dean C. A. Phillips. In his book, *Bank Credit*, published in 1921, he put his finger on a fundamental error that had been repeated by one author after another for more than a century. Chapter III on "The Philosophy of Bank Credit" stands as a contribution of which Phillips may well be proud; in it he distinguished so-called "derivative deposits" from "primary deposits" and showed how and to what degree "derivative deposits" are created, first, by an individual bank and, secondly, by the banking system as a whole.

To the degree that derivative deposits spring from the requirement of the lenders that the borrowers maintain a goodly percentage balance as a condition of the loan, I think that it is a very malignant banking principle; I understand that Mr. Howard Whipple, a prominent California banker, is about to issue a book on the subject in which he takes that position quite stoutly.

The two parts of Professor Rogers' paper are far from equal in precision. The algebraic formulae give evidence of a more exact statistical

analysis than he has given, for he emphasizes the deficiencies of this analysis and offers it "only for presentation." It is probably well that the presentation is two-fold, for it indicates the problem of the Econometric Society; namely, to devise formulae which can be used to measure the actualities of our economic life and not unduly to spin fine theories of an abstract world. To this end, I will content myself with pointing out two qualifications or phases not touched.

First, the ratio of derivative deposits to the proceeds of the loan varies. It rests chiefly upon the banker's bargaining position with respect to the applicant borrowers. For this reason, it increases in prosperous times.

In the second place, credit is a permissive sort of thing, not the compulsory force it is too often pictured. It may not be taken when offered, and even when taken, it may not be used at once, at all, or fully. The argument of the formulae indicates the maximum extent to which derivative deposits may grow. There is an assumed homogeneity that does not exist. The theory hangs on the existence of an effective demand for losses that will absorb all the new possible credit all along the line. There are, however, phases of the business cycle when lenders cannot find borrowers; and with the improving efficiency of our credit system presumably less and less credit is required to handle a physical unit of goods.

Third, when deposits expand, there is inevitably an expansion in the need for hand-to-hand money. The "volume of money in circulation" is in part merely an estimate, and any definition of "money in circulation" has the tough nut of "hoarding" to crack. And when it comes to classifying deposits and determining the actual amounts that may be classed as circulating, this is at present insoluble. Rogers waives it by saying all expansion is via demand deposits.

Dr. C. O. Hardy then contributed the following remarks to the discussion:

The question of the amount of money that is needed to support an expansion of business or a rise in prices is one which has received surprisingly little consideration. The conclusions that Professor Rogers reached with regard to the very slight extent to which an expansion of the stock market business ties up with capital suggest a fruitful line of inquiry with regard to the amount of capital that would be tied up by an increase in the turnover of commodities and of real estate in connection with a speculative boom in those quarters.

The first part of Professor Rogers' paper, which carries somewhat further the arithmetic of Professor Phillips' noteworthy investigation, seems to me entirely sound and very interesting. I regret that he was not able to present more completely the latter part of his paper in which he makes practical application of the theoretical ideas developed in the first part. Professor Rogers indicates his conclusion that the relationship between the amount of fresh reserves and the amount of bank credit which can be pyramided upon them is such as to account for a much greater potency of rediscount rates as a restraining influence on the expansion of bank funds than as a stimulating influence in a period of contraction. His argument as pre-

sented, however, merely shows that the discount rate has little influence in stimulating expansion; it does not throw any light on the capacity of the discount rate to check expansion.

In this connection it seems worth while to point out that the significance of any sort of restriction in Federal Reserve credit entitled to expansion is always conditioned by the cost to the banks of the next most attractive alternative source of fresh reserves. In times when the gold standard is in operation the banks can always get fresh reserves by selling bonds abroad, borrowing abroad, or calling in deposits which they may have in foreign markets. If the Federal Reserve system attempts to check the expansion of credit by making its services more costly, the tendency is always for the banks to turn to this alternative source. In short, if any central banking system attempts either to inflate or deflate credit it must take the responsibility of carrying the whole banking system of the Western world up or down with it—unless other banking systems are pursuing the same policy at the same time.

The capacity of any banking system to operate in this way is conditioned by the relationship between the size of its sphere of direct operation and the size of the world market. Obviously the Federal Reserve system, or the Bank of England, can come nearer carrying out such a policy effectively than can the Bank of Holland or of Denmark. But even in the case of the largest banking systems, action may be nullified by an action in the contrary direction on the part of other central banks, which facilitates the movement of gold into or out of the country.

The other point about which I hesitate most is the extent to which changes in interest rates, within the range which is reasonably possible, are likely to be effective in choking off a boom. When banks begin to cut off lines of credit, business men are compelled to change their plans; but if they stand ready to furnish credit to solvent borrowers at a price, the demand appears to be very inelastic. So long as the business man has orders on his books, interest is a very minor factor in the cost of filling them.

To summarize the two points, I am very skeptical as to the capacity of the central banking system of any one country, without the co-operation of other countries, to force such advance in the cost of commercial borrowing as will be very significant in restraining optimism.

Colonel Rorty's paper on "Quantitative Factors in the Distribution of the Value Product of Industry," in analyzing the nature of this problem, discussed the fundamental distribution between return for labor (personal service), capital, and natural resources. After presenting the Marxian theory, the single tax theory and the bargaining theory of wages, he pointed out the importance of knowing the facts and the trends, since these may fundamentally determine our political, social and economic philosophy. "Rents of natural resources may be absorbed very readily by taxation, but socialization of capital would involve radical economic changes."

Colonel Rorty quoted the figures of the National Bureau of Economic Research, which indicate that, of the amount distributable between capital and labor, in the highly organized industries, about 70 per cent goes to labor

and 80 per cent to capital. There has been an apparent downward trend in the share of capital during the past thirty years of intense mechanization of industry, and in any case, the very apparent absence of any up-trend in such share.

Although there is an absence of earlier statistics, we may infer from the fragmentary data that the share of capital rose rapidly during the early years of the factory system. There is no absolute reason why this share might not approach 100 per cent more and more closely as time went on, for the typical factory might be one man pulling levers and pushing buttons. However, the facts seem to indicate a rise in the share of capital to about 80 per cent and then a decline, with a tendency to stabilize at, perhaps, 20 to 25 per cent.

It is evident that industrial capital, on the whole, receives, and will continue to receive, only a living wage; that is, ordinary interest plus a reasonable compensation for risk. With the preceding fact granted, the problem becomes one of capital turnover. If, in any given class of business or production, the ratio of gross sales or receipts to invested capital is increasing, then the share of labor in the value product is almost certainly increasing also. An even more direct test is the ratio of annual pay rolls to invested capital.

Colonel Rorty pointed out that increased capital turnover is clearly possible in merchandizing operations and that the trend in this direction is unmistakable, as, for instance, in chain stores and so forth. Modern management aims at increased capital turnover in all operations. This may not be possible, however, in the very highly mechanized industries.

He cited evidence from correspondence with the machine tool industry that investment in highly automatic machines per dollar of output may be greater or less than in nonautomatic or semiautomatic machines. Production costs involve so many elements besides costs of machines and machine operators that a direct approach to the problem is not possible. Managers of highly mechanized industries testify that labor is tending to receive an increasing proportion of the value product.

Colonel Rorty asked:

What appears to be the controlling factor? The very rapid annual increase in the efficiency of machine tools compels the purchaser to insist on a high capital turnover. He cannot risk installing an equipment that may become semiobsolete next year, unless it will pay for itself in two or three years at the most. The more rapidly machine tools are improved from year to year, the more rapidly they must be scrapped. Even now, the machine tool builders themselves recommend at least 25 per cent annual depreciation.

Colonel Rorty arrived at the following conclusions:

(a) Scientific management is insisting on a higher and higher rate of capital turnover in business and industry as a whole; (b) the rate of improvement in machine tool equipment, which is accelerated from year to year, is forcing a high capital turnover in those very industries where an extreme building up of capital equipment might be expected; (c) the observed tendency toward a decline in the share of capital probably represents a real trend toward stabilization at a level lower than 80 per cent; and,

in any case, there is no reason to expect that the share of capital will increase in the future; (d) our economic and social philosophy may very reasonably be based on the assumption that capital, in the future, will receive less rather than more than 80 per cent of the total amount available for distribution between capital and labor. In addition, the indications are that stabilized population, improved transportation, and improvements in agricultural methods will reduce the future share of rents of natural resources in the value product of all industry to something below the present figure of about 8 per cent.

Colonel Rorty's paper was discussed by Dr. E. J. Working and by Professor Zenas C. Dickinson.

Professor Dickinson said in part:

The subject matter of Colonel Rorty's paper is almost an economic paradox. Before the recent statistical investigations into national income, a theorist had some warrant for holding that capital was increasing faster than labor; that the rate of interest was not falling; hence that the share of capital in the product of industry must be increasing. The Federal Trade Commission's estimates for the period 1917-28 assign about 60 per cent of the products of all nonagricultural industries to wages and salaries; while the wage and salary share in the electric light and power industry is given at 84 per cent. According to Professor Douglas' calculations, the capital employed in manufacturing in the United States increased, during the period 1899 to 1922, by some 168 per cent, while the labor employed increased perhaps 60 per cent.

It is therefore somewhat surprising to find that statistical estimates show no tendency in the percentage of product going to wages and salaries to decline. The National Bureau's calculations are supported on this point (though perhaps not as to the amounts of the respective percentages) by Professor Douglas' figures for manufacture in the United States; and moreover Mr. Bowley has estimated that the division of national income in Britain gave to "earned" income about the same share in 1918 as in 1880, and a somewhat larger share in 1924 than in 1911.

Among the numerous cautions which must be observed in interpreting such data, there are a few which I should like to emphasize here. First, independent investigation as to historical trends in the rate of interest in themselves may throw little or no light on important elements in the residual income, which elements go neither to wages and salaries nor to capital in the strict sense. Second, the fluctuations of these latter elements may not appear so negligible as the ups and downs of the wage and salary share, because their base is always much smaller.

A novel point of Colonel Rorty's paper is his emphasis on capital-saving trends in modern business. The tendency of all these economies of capital, considered in themselves, must be to check the demand for capital and keep down interest rates; also to counteract the other forces which cause capital investment per worker to grow. The factor of increasingly rapid obsolescence operates perhaps in more complex fashion. It makes the user think twice before purchasing a tool; and yet if tools are increasingly dis-

carded before they are physically worn out, that must mean an enlarging amount of social capital required for tools.

In any case we must return to the "paradox" of capital supply increasing more rapidly than labor supply, yet apparently not absorbing a growing share of the value product. Possibly this favorable trend in the bargaining power of "labor" (wages and salaries) is peculiar to a declining rate of population growth. The period for which we have the most nearly satisfactory data seems roughly to fulfill Walker's wage theory: capital receiving a living wage; labor the residual claimant.

The third paper presented was that of Dr. Mordecai Ezekiel on "The Relation between Mathematical Economics and Statistical Price Analysis." Dr. Ezekiel first pointed out the superficial similarities: the use of mathematical symbols, the use of mathematical treatment, and the dependence on at least limited mathematical training and understanding. He then discussed the fundamental differences. Mathematical economics starts with stated assumptions, rigidly defined, and investigates the conclusions which rationally follow. This is similar to previous economic theory, but it forces more rigid, detailed, and explicit statements of assumptions. Mathematical economics, which makes no direct attempt at agreement of conclusions with reality, may or may not lead to generalized results.

Statistical price analysis, on the other hand, starts with objective measurements and seeks to determine the interrelationship among the elements through statistical manipulations. The selection of variables and the nature of the manipulation is dependent upon previous logical hypothesis and is more or less controlled by experimental studies of the data, retaining those which are found to be most fruitful in this experimental work. The attempt at statistical manipulation may force a rigid and clear-cut hypothesis.

"The extent of agreement between hypotheses and reality," Dr. Ezekiel maintained, "is measured within the limits of the rigid logical frame and the selection of variety employed. Failure to agree may be due to weaknesses either in hypotheses or in statistical investigation. The conclusions are particular both as to commodity, time, and space, and if these conclusions are successful (high r) may or may not yield relationships in shape for subsequent investigation by purely mathematical processes."

Continuing he said that, in practice, price analysis has been most successful in agricultural commodities alone. This is probably because they conform most closely to assumptions of free competition (having a large number of units, slight in effect upon total, and reacting in fairly continuous patterns). Agricultural commodities also have the most data available and the most funds for investigation.

Price-making forces, however, could be investigated under other situations as well, taking due regard to the nature of the pricing process. Among the influencing factors are the price of electricity, as between cities under utility regulation, coal, size, density, wage level, interest rates, rate of growth, and so forth, but these are factors of geography rather than time.

Price-level changes are as yet only partially understood and imperfectly explained. Many of the relations observed are of unknown generality. For

example, supply-price curves may shift if very high or very low prices are long continued—the question of habit becoming fixed. Short-term elasticity, of course, differs from long-term. The influence of changes in situation is frequently ignored. The suggestion of Evans as to changes in price or price history as one factor in demand and in supply is abundantly illustrated by stock-market records.

“Can the methods of mathematical economics and statistical price analysis be unified, merged, or co-ordinated?” Dr. Ezekiel queried. “The finds of one rests on facts, with a pinch of hypothesis; the other on hypotheses which contain a pinch of facts. Neither adequately treats the nonregular and non-rational elements in economic life.” Dr. Ezekiel cited tariff barriers (except in so far as a law of regularity may be discovered in them) and other political changes. He said:

Constant evolutionary changes occur in the institutional structure within which economic changes take place—though *laissez faire* conditions, where statistical analysis so far has worked best, are constantly becoming of diminished importance. Both statistical and mathematical economics face the challenge of modifying and developing their methods to cope with the increasing complexity of their material.

Each can contribute certain things to the other—mathematical economics, things to look for and relationships to run down; price analysis, tentative slope of economic relations, or dynamic demand and supply curves, which present material for further mathematical elaboration.

A full generalized system is still far in the distance and may become increasingly distant—in spite of Moore's brilliant unification of non-realistic materials.

In discussing Dr. Ezekiel's paper, Dr. Leontief said in part:

From among the number of problems which may be raised in connection with this interesting paper, I wish to limit myself to the most general problem—the question of the fundamental relation between theory and empirical investigation.

Every theoretical proposition is a conditional sentence of the form, “If A is true, then B is true.” But there is another kind of relationship between theory and statistical analysis: The conditional theoretical statement enables us to surpass the limits of direct observation. This can be done by indirect calculation of unknown B from observed A'.

Surely, by expansion of the field of direct observation we should be able to check our results afterward by comparison of deduced B with actual B'. . . . If such a check were always possible the theoretical framework would become quite useless. The very essence of a theoretical approach is to give us the possibility of ascertaining the unknown facts that lie beyond our direct recognition.

In the statistical price analysis we deal with two sets of data—the one being represented by our price and quantity series, the other relating to the structure of the supply and demand schedules. Quantitative economic theory shows us a certain kind of relation between these two sets of facts. If we should like to check this theory we should firstly have to undertake two

separate and independent empirical investigations of these two sets of data, and, secondly, to study the empirical relation between them and finally to compare the results of this statistical investigation with our theoretical hypothesis.

It seems to me that the general trend in the statistical price analysis until now has been different. Instead of expanding our empirical investigation of both sets of facts, we limit it to only one of them (A')—say, to prices and quantity series. The other (B)—the supply and demand schedules—is usually derived statistically with the help of our theoretical assumptions. Any attempt to check this assumption by comparison with the results of our statistical investigation would inevitably involve us in a vicious circle.

A peculiar technical characteristic of most of the available statistical methods is that they are really never quite adequate to our theoretical proposition. This is perhaps a most striking difference between mathematical statistics and mathematical economics. In contrast to the conditional character of the fundamental theoretical hypothesis these auxiliary propositions (I have in mind secondary mathematical characteristics of different trend formulae, line of regression, etc.) are unconditional and assertive; that is to say, non-theoretical. The different reliability measures, standard errors and coefficient of correlation, I believe, are really relevant mostly to validity of this arbitrary technical proposition.

If our analysis of some agricultural prices is founded on the theoretical assumption that the relation of these prices to the respective quantity produced is determined by the consumers' attitude, then even a most perfect correlation cannot be considered as a proof of this proposition. On the other hand, a perfect lack of correlation cannot disprove our theory. If the linear correlation does not work we can try curvilinear correlation. Even if this attempt were to fail we never should be able to say whether A is due to a wrong theoretical proposition or to the fact that we are using a second degree parabola instead of some other kind of a curve. So long as a theoretical hypothesis is logically involved in statistical analysis it is hardly possible to check the same hypothesis by any comparison with the results of this investigation.

SESSION ON TECHNOLOGICAL CHANGE AS A FACTOR IN UNEMPLOYMENT

THE THEORY OF TECHNOLOGICAL PROGRESS AND THE DISLOCATION OF EMPLOYMENT

By ALVIN H. HANSEN
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The orthodox view that technological innovations release purchasing power which is directed against new goods, and that in this manner the displaced labor is reabsorbed, confuses, as John Stuart Mill pointed out long ago,¹ the demand for labor with the demand for commodities. Mill saw and stated very clearly the fallacy involved in this reasoning, but his criticism appears to have been forgotten in the current discussions. The traditional explanation has it that the total purchasing power is increased by the introduction of labor saving improvements. This new purchasing power, it is argued, is directed toward the purchase of new or additional goods and these require for their production the reabsorption of the displaced labor. In point of fact, however, the displacement of labor of itself means only that the same quantity of goods can now be made at lower cost. It is not until the displaced labor, or at least a portion of it, has again been put to work, that the purchasing power has in reality been increased. Labor saving improvements, it is true, make possible an increase in purchasing power once the displaced labor again becomes active in industry. But the increase in purchasing power is the result of labor reabsorption and not the cause. Labor saving techniques redistribute purchasing power but do not of themselves create additional purchasing power. The increased purchasing power of other groups is exactly offset by the decreased purchasing power of the displaced workers. What these technological developments set free is not purchasing power but productive power.

The productive power set free through the displacement of labor may eventually become reabsorbed into industry in several ways. It may be that credit released from the lower cost industry may find an outlet in other fields. In consequence prices rise, profits improve, business expands, and labor is employed in larger volume. Or, should this development not occur, it may be that the reabsorption takes place through a lowering of money wages. It is also possible that the improved techniques and lower costs may raise profits, increase capital investment and thus raise the demand for labor. This latter development may also, under certain circumstances, necessitate a readjustment in money wage-rates.

¹J. S. Mill, *Principles of Political Economy*, pp. 96-7 (Ashley edition). See also my "Institutional Frictions and Technological Unemployment," *Q.J.E.*, August, 1981.

Thus in one way or another the likelihood is that the displaced labor will eventually be reabsorbed.

Put briefly, the current, traditional view is subject to criticism on two counts: first, the mechanism usually employed to explain the labor reabsorption confuses cause and effect; second, there is no assurance that the displaced labor will, in all cases, be reabsorbed unless we assume a flexible economic structure; that is to say, a flexible system of prices and wage-rates.

The orthodox view has been roundly criticized from the standpoint of price rigidity by numerous adherents of the institutional school. The position taken is that the displaced labor will not be reabsorbed, as the orthodox view has it, unless the prices of the commodities affected by technological changes are lowered to the new cost basis.

If prices are maintained by cartels, trusts, or any other form of monopoly power, the labor reabsorption, it is argued, will not occur. This traditional institutional viewpoint, while it points in the right direction, needs, it seems to me, some qualification. So long as the price of labor is established in a free market, the displaced labor can eventually be absorbed even though individual prices are rigidly maintained by monopoly power over a wide field of industry. No factor of production can permanently remain unemployed so long as its own price is subject to free market forces. Though the output and prices of certain commodities are subjected to monopoly control, capital can always find an outlet for employment if interest rates fall sufficiently. So also with labor. Should, however, the whole field of industry be completely monopolized, so that every avenue of employment for all the factors of production is closed, then indeed a flexible price system in the labor and capital markets would be of no avail. The institutionalists' criticism of the orthodox position does not, however, presuppose a completely monopolized society.

But while organized resistance to lower prices, conforming to lower costs, does not preclude the ultimate absorption of labor when wage rates are flexible, it is nevertheless true that such action places an undue strain upon the flexibility of wage-rates. Since wage-rates, in point of fact, even in the most fluid society, cannot be perfectly flexible, it cannot be doubted that monopoly and quasi-monopoly control does delay the process of labor reabsorption. Indeed, under certain circumstances, a proper price policy would alone be sufficient to guarantee the re-employment of the displaced labor. Under these circumstances it is quite correct to place the whole blame for continued unemployment upon the uneconomic price policies of organized business groups.

There is, however, still a third theory of technological unemployment. It is the view that technological displacement may become permanent if

wages rise or remain constant while the price of machinery falls. Technological unemployment has increased of late, it is said, because wage-rates have remained during the last decade on substantially the same level, while the prices of capital goods in general have fallen sharply.

This viewpoint represented, in particular, by Professor Sumner Slichter in our meetings of three years ago, while on the right track, does not, in my judgment, go quite far enough in the analysis. To illustrate: During the last century the prices of capital goods in relation to wage-rates have fallen very materially and almost continuously. Yet, up to the time of the World War, there is not the slightest evidence of an upward trend in per capita unemployment.

It is not wage-rates and the prices of capital goods, as such, that matters. Rather it is labor costs in relation to capital costs. If the productivity of labor doubled, capital would not be substituted for labor even though the prices of capital goods had fallen 50 per cent.

The problem of technological unemployment is fundamentally, as I see it, a part of the broader problem of the proportionality of the factors of production. Technological innovations disturb the correct pricing of the factors of production, because they alter the relative productiveness of the factors. Until the prices paid the different factors are again brought into line with the changed productivity the overpriced factor will be displaced.

As a rule, labor is the factor which becomes overpriced in consequence of technical innovations. Technological unemployment is thus seen to be the result of the time lag required to adjust the earnings of the factors to changes in productivity. Were it not for institutional frictions which prevent the pricing of the factors from shifting instantly with every change in productivity, there would be no technological unemployment. Technological unemployment is a function of the failure of the pricing system to adjust itself to changes in the relative productivity of the different factors of production.

If labor is overpriced in relation to capital, a part of it will be unemployed. The correct pricing, of course, implies that the efficiency earnings of labor and capital shall be equal; that is, the money rewards of labor in relation to marginal product, must equal the money rewards of capital in relation to its marginal product. Labor costs and capital costs must be equal at the margin. Under these circumstances the entrepreneur could make no gains from substituting one factor for another. The pricing of the factors may be upset either by a change in the price paid for a factor without any change in its productivity, or by a change in the productivity of a factor, without a corresponding change in its price.

It is the lag in the adjustment of earnings to productivity or of pro-

ductivity to earnings which is responsible for the overpricing of one factor in relation to another, and therefore for the substitution of the low-priced factor for the high-priced factor.

Labor may be displaced by capital in consequence of any one of the following changes: In the first place a forced increase in wage-rates, for example by trade union action, to a point at which capital can be employed more economically than labor. Labor thus displaced would remain permanently unemployed until wages were reduced or else labor's productivity were raised to a point at which its efficiency earnings were again in line with the efficiency earnings of capital.

In the second place, a lowering of the rate of interest might reduce capital costs below the level of labor costs. Under these conditions capital would be substituted for labor. Such substitution, however, would soon cease since every added investment of capital would lower its marginal productivity and raise the marginal productivity of labor and thus again bring the efficiency earnings of capital into line with the efficiency earnings of labor. Eventually the investment in additional increments of capital would reach a point at which any further extension of the roundaboutness of production would become unprofitable; the marginal productivity of capital in relation to its earnings would eventually become lower than the marginal productivity of labor in relation to wages. At this point labor displacement would cease, and beyond this point any further expansion of industry would favor the employment of labor in preference to capital.

Briefly stated, increased saving tends to displace labor since it has the effect, through the consequent reduction in the interest rate, of lowering capital costs in relation to labor costs. On the other hand, each additional increment of capital outlay brings you nearer the point at which further labor displacement becomes unprofitable since the continued process of investment lowers the marginal productivity of capital and therefore raises capital costs in relation to labor costs.

In the third place, technical innovations tend to displace labor since they usually have the effect of raising the marginal productivity of capital. This normally leads, however, to a more roundabout process of production, and this, as we have already noted, tends eventually to re-establish the equilibrium of capital and labor costs, since every additional capital increment raises the productivity of labor and lowers the productivity of capital.

According to the wage-fund theory, particularly as developed and clarified by Cairnes,² displaced labor could not be reabsorbed except through the increased investment of capital. Cairnes believed that the combination of labor and capital was rigidly fixed by the state of the

² J. E. Cairnes, *Some Leading Principles of Political Economy*, pp. 167-174.

arts for each industry, and therefore more labor could not be employed unless more capital were available with which the labor could be combined. Moreover, the source of this capital supply would have to come out of an increase in profits made possible by a reduction in wages. His analysis therefore called for a very substantial reduction in wages in order to furnish a sufficient volume of new capital. The error in Cairnes' analysis lies fundamentally in his belief that the state of the arts rigidly determines the combination of the factors of production.

In point of fact, the large measure of flexibility possible in the combination of factors brings it about that a relatively slight fall in money wages and a relatively slight investment of new capital may alter the ratio of the efficiency earnings of labor to the efficiency earnings of capital very considerably. Thus a new equilibrium can be reached much more readily and quickly than was believed possible by Cairnes. Moreover, Cairnes, with his wage-fund doctrine, was unable to see that the demand for labor comes from prospective income and not from capital, and that this prospective income may become an actuality through the employment of bank credit which enables one to put the productive forces in motion in anticipation of the sale of the product from which the factors of production will eventually have to be paid.

But the general direction of Cairnes' analysis was nevertheless sound. A flexible system of wage-rates and an increase in new investment are the chief instrumentalities through which labor, displaced by technological innovations, is eventually reabsorbed.

It is true that an adequate increase in new investment might absorb any given volume of displaced labor even without a fall in money wage rates, provided, first, that sufficient profits to finance the new investment were forthcoming from the gains of technological improvements, and, second, that the monetary system were able to furnish a sufficient quantity of circulating media to finance the new method of production without producing disequilibrium in the internal price structure. But this is by no means always or necessarily the case. It follows, therefore, that the complete absorption of the displaced labor presupposes, as a necessary condition, flexible capital and labor markets.

This brings us to a consideration of the relation of technological unemployment to a downward trend in prices. If the money supply does not keep pace with the requirements of the highly productive new techniques, the commodity price level must fall. Under such conditions, the displaced labor would be absorbed more slowly. In the event that the fall in prices were not wholly caused by technological improvements but were caused in part by monetary factors, a deflation of the earnings of the factors would obviously become necessary before all could be employed. But even in the event that the fall in prices were caused by technical inno-

vations the displaced labor would be absorbed less rapidly in a period of falling prices. Maladjustments also in these circumstances would develop in the internal price structure for the following three reasons:

In the first place, maladjustments would develop owing to the unequal rates of progress in different industries. If the progressive industries confronted an elastic demand situation they would absorb a larger share of the total purchasing power of the commodity and so force a retrenchment in the inefficient industries which proved unable to reduce costs. Until a new equilibrium were reached unemployment would be intensified. In the next place, falling prices caused by technological improvements cause serious maladjustment owing to the unequal rates of progress of different firms in the industry affected. Only a small fraction of the producers can as a rule take advantage of the new techniques. The less progressive firms are gradually squeezed out and while this process is going on much unemployment will prevail. Finally, even though the general decline in prices is caused by technological progress, the prices are, as a rule, not lowered simultaneously with costs. The firms which have introduced the new methods strive, as a rule, to retain the advantages of the improved techniques, and refuse to pass on the gains to the public in the form of lower prices until they are forced to do so under the pressure of economic necessity. As a rule, business enterprises will not lower prices in line with reduced costs until they have passed through the disillusionment and bitter experiences of depression.

We must conclude, therefore, that a fall in prices caused by technological progress tends to aggravate and prolong the displacement of labor. And if the fall in prices is further accentuated by monetary causes, the displaced labor will be absorbed with still more difficulty. Particularly is this the case when wage-rates are inflexible and fail to become adjusted to such changes in the price level as are caused by monetary factors. In the last decade, the whole world has experienced a downward price trend, and consequently more than the usual difficulty was encountered in absorbing technologically displaced labor.

Finally let us consider the relation of technological unemployment to the stabilization of the business cycle. Let us suppose for the sake of the argument that the business cycle could really be flattened out, whether by monetary policies, by a program of public works, or by the controlled adjustment of investment to saving. With cyclical unemployment disposed of, there is every reason to believe that technological unemployment would thereby be intensified. When is it that the labor displaced by technological innovations or other structural changes is most readily and easily reabsorbed into industry? Is it not in the prosperity phase of the cycle? It is the absorptive power of the boom period that opens up new jobs for the displaced workers. If the boom were eliminated would

not the labor made redundant by machinery become reabsorbed far more slowly, thus increasing the volume of technological unemployment?

Cyclical fluctuations have the effect of giving the whole economic structure a good shake-up and keeping the system reasonably flexible and mobile. With the business cycle eliminated there would not be the periodic rubbing down, so to speak, which gives industry a fresh lease on life. Depression, like a cruel and heartless tyrant, clubs down the impossible demands made by the employed agents of production, until the earnings of the factors have again reached a point at which full employment becomes profitable. With the business cycle ironed out, it can scarcely be doubted that the price and wage structures would become more rigid. The capacity to absorb labor displaced by technological innovations would therefore be reduced.

The conclusion is that we cannot afford to assume a too easy optimism with respect to technological unemployment. The increasing rigidity of modern economic life consequent upon price and wage controls—*Die gebundene Wirtschaft*, as the Germans so aptly put it—points in the direction of a slackening in the rate at which displaced labor can be reabsorbed into employment. Moreover, should we prove unable to prevent a downward price trend in the next decade or two this growing tendency toward rigidity would become a still more serious matter and the problem of technological unemployment would be intensified.

THE MEASUREMENT OF PRODUCTIVITY CHANGES AND THE DISPLACEMENT OF LABOR

By HARRY JEROME
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Let me distinguish at the outset four closely associated concepts: (1) the personal efficiency of the worker; (2) the average productivity of the worker—the ratio of output of product to the input of labor, regardless of the causes which may determine the size of that ratio; (3) labor displacement, meaning a shrinkage in the number employed in a given process, occupation, plant, or industry; and (4) technological unemployment; that is, unemployment which is due to labor displacement arising from a change in methods or equipment.

To illustrate these concepts, let us assume one hundred miners working in two groups of fifty each and cutting and loading five hundred tons of coal per day in each group, using hand tools. The men in Group A are stronger, more experienced, and more diligent workers—their personal efficiency is higher than that of the men in Group B—but the coal in their section of the mine is less accessible. Hence the productivity rate (ten tons of coal per day per man) is identical for the two groups. Now assume the management equips Group B with mechanical coal loaders and that with their aid twenty men can turn out as much coal as fifty with hand loading. Productivity has increased, but if the mine operator continues to employ the entire crew there is no labor displacement for this mine. However, if he lets thirty men go, because twenty can do the work formerly requiring fifty, then the increased productivity has caused labor displacement. If the thirty discharged men promptly find other work, there is no technological unemployment. But if they are either temporarily or permanently out of work because of the introduction of the mechanical loaders, to that extent technological unemployment has been created.

For present purposes, we are concerned, not with the measurement of personal efficiency or changes therein, but with labor productivity, labor displacement, and, by implication, unemployment arising from displacement. The distinction between these terms is not merely academic. The employer and the consumer are concerned primarily with increasing labor productivity and its effects on the costs and prices of goods. But the factory worker is concerned, directly at least, with labor displacement and technological unemployment.

I must not take the time to elaborate the many refinements which are possible, but let me suggest parenthetically that if the purpose of measuring productivity is to provide a yardstick for the net efficiency of our industrial system in delivering goods to the final consumer, then we

should calculate, not merely the customary gross productivity—the ratio between output and employment in, say, only the fabrication stage—but an adjusted productivity rate.

This adjusted rate would take into consideration the labor embodied, so to speak, in the buildings, machinery, and materials used, and also the labor required in marketing the commodity. It is entirely conceivable that a mass production technique involving a large market for its successful use, may increase the labor-time costs of marketing and transportation enough to offset gains in the manufacturing process.

What problems of measurement arise in connection with these several concepts? From the point of view of formulating an intelligent program for rationalizing industry, we may state them as a fourfold problem in forecasting:

1. To forecast the technological changes which are probable for an industry.
2. To forecast the effect of such changes on labor productivity.
3. To forecast the effects on labor displacement of the expected changes in productivity.
4. To forecast the extent to which the expected labor displacement will result in technological unemployment.

Concisely stated, the keynote of current economic discussion is planning; the essential element in planning is forecasting; and the basis of forecasting is experience. Our first step, then, is the study, and, if possible, the measurement, of past experience in the field of technological changes and their effects. Until recent years this field of research was, with a few noteworthy exceptions, uncultivated. Enough has now been accomplished, however, to mark out some main avenues of approach.

The Index Number Approach. First, we have, for industries as a whole, the index number attack on the measurement of changing productivity, pioneered by Clague in his studies for the Bureau of Labor Statistics, in iron and steel, automobiles, shoes, sugar, and several other industries.¹ By the simple device of dividing an index number of production by an index of employment, adjusted where possible for changes in hours, he obtains indexes of labor productivity.

Such approximations, made for an entire industry, are useful in hinting the major trends in productivity, but they do not go far enough. They suggest little or nothing of the causes of changing productivity, nor its effects in terms of labor displacement or unemployment. They do not show whether the rising level of productivity is ascribable to improvements in which all plants have shared more or less equally or merely to the result of a ruthless elimination of less efficient plants. They afford

¹ *Monthly Labor Review*, July, 1926, pp. 1-19; October, 1926, pp. 10-21; November, 1926, pp. 30-40; and January, 1927, pp. 35-49.

little clue as to whether the movement measured has about run its course or is just gaining momentum for still more rapid progress.

Case Studies of Individual Plants. A step toward more intensive analysis is found in the researches which endeavor to throw light on the productivity history of an industry by examination of the output and employment records of individual plants over a period of time. Miss Jamba's study of a New England cotton mill, from 1888 to 1925, was a pioneering effort of this type.² The merchant blast furnace survey by Clague and Givens for the Bureau of Labor Statistics is an excellent example of the individual plant method applied to a substantial fraction of an industry.³ Somewhat similar studies of historical changes in productivity, and accompanying changes in technique, have been made by the National Bureau of Economic Research for a number of industries such as cement, sugar, lumber, and brick, but are as yet unpublished.

By tracing the productivity history of individual plants for a substantial fraction of an industry, tendencies not discoverable from the consolidated record for the industry as a whole should be revealed. The record promises to be even more useful if made by departments and if the measurement of productivity changes can be accompanied by the measurement, or at least the description, of companion changes in dollar investment in equipment, per cent of idle plant time, changing grade of workers, and other factors having, presumptively, a bearing on productivity.

If the scope of the survey is to be extensive, the necessary research can probably be carried on most effectively by a governmental agency or under the auspices of an industrial association of some sort; or, better yet, by co-operation between the government and a trade association.

However, many profitable studies can be carried on by more or less free-lance researchers, if they work in fields sufficiently limited so that they can conduct the survey personally or with the help of a limited number of closely supervised assistants. Such studies pave the way to projects on a larger scale and are particularly useful in the early stages where the technique of investigation is being developed, or problems peculiar to a small industry or a single locality are involved. A large-scale investigation must almost necessarily use standardized methods which are not readily adapted to special conditions; the small-scale worker can adapt his methods more closely to the peculiarities of the particular situation in which he is working.

Where it is impracticable to ascertain both the chronological and comparative aspects of productivity differences, valuable data are yielded

² Anne Jamba, "Productivity of a New England Cotton Mill, 1888-1925," *Monthly Labor Review*, October, 1926, pp. 21-32.

³ *Productivity of Labor in Merchant Blast Furnaces*, United States Bureau of Labor Statistics Bulletin No. 474.

by surveys which are restricted to revealing comparative productivity rates at a given time of plants varying in size, in methods, or in equipment. The glass industry study by Boris Stern, for the Bureau of Labor Statistics, is an excellent example of this type.⁴

At best, however, neither studies of comparative productivity nor period-to-period records of changing productivity in representative plants, unless supplemented by case studies of discharged men, contribute direct material for the measurement of technological unemployment.

Despite this limitation, if we are to look forward hopefully to a time when we can anticipate the degree and effects of changes in industries, we must have many closely analytic studies of separate industries, conducted, if possible, with the full co-operation of the industry, and having as their object the determination of any observable regularities in the way in which technological changes take place. It is frequently said we cannot anticipate what inventions will be made. That may be true, but I think we will find, when adequate study has been given to the problem, that as a general rule innovations go through a certain typical life history, with a relatively slow growth in the early stages, so that a trained observer could frequently detect a promising innovation before its commercial adoption has become general and prophesy with fair success the trend of its adoption in the future.

My general thesis is that we shall be in a much better position to understand how technological developments take place, and hence to forecast future tendencies in labor displacement, when we have traced as best we can, industry by industry, or even process by process, those changes in productivity and displacement which have taken place in the past and the other concurrent changes in industry which accompanied, and in part, at least, account for, developments in productivity and displacement.

Measurable Aspects of Production Operations. What are these measurable aspects for an individual plant, or industry, which may be historically traced, as at least a partial guide to the future?

The first is obviously output. Preferably in simple and reasonably comparable units, such as pounds of sugar or tons of coal; otherwise, in a composite index of production, less exact, it is true, but useful if carefully weighted.

Secondly, employment, preferably both in number of men and in man-hours. The number of men is most useful in studies of labor displacement; man-hours, in studies of changing productivity. An increasing number of plants are keeping records in terms of man-hours. In some states this is encouraged by legislation basing payments to workmen's compensation funds on hours of labor time.

⁴ *Productivity of Labor in the Glass Industry*, United States Bureau of Labor Statistics, Bulletin No. 441.

A challenge is presented to the statistician by the skill displacement aspect of technological change. How, if at all, can we measure the effect on the grade of labor required when numerous occupations are involved? In many instances, a direct count of the numbers in specific occupations before and after the change will afford useful evidence of the effect on skill requirements. But is it not possible to construct some sort of an index of skill requirements? Though recognizing some of the limitations, I throw out the suggestion that we may profitably experiment with the computation of an index of changing skill in an industry, based upon the number of workers in the various occupations and the ratios of the hourly earnings in the specified occupations to the earnings of common laborers in the same industry and locality. To the extent that earnings are a measure of skill, a decline in such an index would represent a declining spread between the average skill in the industry and that of the common laborer.

Of considerable promise as a method of analyzing skill displacement are detailed job analysis surveys of the type being conducted as part of the Minnesota unemployment research project.⁵ The training and skill required for each operation in the plant is noted. Then the survey is to be repeated after an interval sufficient to permit technical changes to occur and to warrant conclusions concerning their effect upon the skill required.

Obviously this method cannot be extensively applied, except by factory executives themselves as a method of self-analysis, but even on a limited sampling basis, it should furnish valuable aid in appraising the effects of technological changes.

When it comes to the problem of measuring the causes of changing productivity, rather than their effects on output or on labor time, the task becomes more difficult, but there are some measurable aspects and an effort should be made to measure them.

Changes in horsepower as a measure of changing mechanization is a familiar concept. Professor Willard Thorp has pointed out some of the limitations of this measure.⁶ In addition, we often can profitably measure the rapidity with which a given device, rather than power in general, is put in use. This measurement may be either in terms of number of machines, fraction of workers using the given method, or fraction of output produced thereby.

Nor is it inconceivable that we can for some plants and industries work out a measure of total investment in plant and equipment as a basis for comparing average capital productivity or output per unit of capital

⁵ Russell A. Stevenson, *The Minnesota Unemployment Research Project*, University of Minnesota Employment Stabilization Research Institute, Vol. I, No. 1.

⁶ Willard Thorp, "Horsepower Statistics for Manufacture," *Jour. Amer. Statistical Association*, December, 1929, pp. 879-885.

goods, analogous to labor productivity. The difficulties are great—in the way of proper allowances for depreciation, obsolescence, and purchase at varying price levels—but they are not necessarily insurmountable.

Another measurable phenomenon which might throw light on the causes of changing productivity and the nature and causes of difficulties in our industrial system is an index of equipment idleness. We have endeavored, with some degree of success, to measure fluctuations in the utilization of labor. Of almost equal significance for an understanding of the nature of industrial operations is a measure of the utilization of equipment. For what fraction of time is equipment in use? What fraction of capacity is idle even at the peak of activity? We have beginnings of such measures in the statistics of active cotton spindles and of idle cars, and in the estimates of "per cent of capacity at which operated" now published for a number of industries. For steel castings, the published figure for September of 1981 was 28 per cent. What would a composite index of equipment idleness for all industry show? Further evidence along these lines should go far to furnish a sounder basis for analyzing the problem of overcapacity.

Market Factors. The aids to the estimation of labor displacement which I have mentioned arise primarily in the production process. Production, of course, is contingent on markets; and additional aids to forecasting may be obtained from an analysis of the market for commodities. Professor Douglas has laid the foundation for research in this field in his analysis of coefficients of value flexibility. As an aid to forecasting to what extent technological improvements will result in an expanded market and to what extent in labor displacement, he proposes the determination for many commodities of coefficients of flexibility of value through time.

These coefficients may be briefly described as fractions of which the numerator is the change in the index of the price of a given commodity, deflated by the index of the general price level, and the denominator is the change in the index of quantity for the given commodity, deflated by the index of quantities of all goods and services.

If this approach can be made to contribute significantly to the forecasting of labor displacement, Professor Douglas, with his capacity for statistical pioneering, will doubtless make it yield those contributions.

I think I can see substantial, if not insuperable, difficulties in the use of coefficients of flexibility of value as aids to displacement forecasting. Adjustments of price to expense of production are at best imperfect and slow. Labor-saving changes usually precede any resulting price changes; and, in the meantime, the labor displacement may have taken place. For many commodities coefficients of flexibility of value cannot be computed;

and at best indexes with a substantial margin of error must be used in their construction. Perhaps the most important limitation upon their use is the fact that only in somewhat exceptional cases does the particular type of labor affected by a technological change bulk high in the total expense of the final product. On the average the direct payment for wages in manufacturing constitutes only about 40 per cent of the value added in manufacturing, not to mention the expense for materials and for marketing. Changes which affect only one manufacturing operation ordinarily lower the unit expense for the final product only a small fraction of the total cost; and, consequently, any effect which a labor-saving change may have on the expansion of markets through a lowering of price is not apt to be commensurate with the reduction in the labor required in the operation immediately affected.

These difficulties in the use of coefficients of flexibility of value are cited, not because I think attention should not be given to the degree of elasticity of demand of products, but because I wish to stress the point, that while the particular method of attack suggested by Professor Douglas should be given full consideration and trial, no reasonable expectation of aid from that quarter should blind us to the necessity of assembling all other available aids to the task of analyzing the causes character, and effects of impending technological changes.

Technological Unemployment. None of the types of studies previously mentioned go directly to the problem of technological unemployment. An index of productivity, or a period-to-period record of the number of men employed in various plants or industries may indicate displacement and possibilities of unemployment but do not furnish certain evidence thereof. For such purposes we must turn to surveys of the individual case study type, such as those made by Lubin, for several hundred discharged workers in Chicago, Baltimore, and Worcester; by Myers, for skilled cutters in the Chicago garment trade; and by Clague for the workers displaced by the closing down of a New Haven rubber plant.⁷ These studies trace the actual unemployment experience of workers whose jobs were lost through technological change. It is only thus that we can ascertain with a reasonable degree of certainty whether the men who are released from one plant or industry customarily find employment, and prompt employment, in other plants or industries. Such studies, though of necessity small samples, furnish valuable clues for interpreting the probable effect of increases in productivity and labor displacement.

The greatest promise of co-ordinated information for the group of

⁷ Isador Lubin, *The Absorption of the Unemployed by American Industry*, Brookings Institution, 1929; R. J. Myers, "Occupational Readjustment of Displaced Skill Workers," *Jour. Pol. Econ.*, August, 1929, pp. 473-489.

problems we are considering is afforded by surveys which combine for a limited geographical and industrial area, over a substantial period of time, both the study of changing technology and labor displacement in representative plants and the subsequent industrial history of the men thus displaced.

To my knowledge, the nearest approach to this type of survey is the scholarly study of technological change and labor displacement made by Miss Baker for the commercial printing industry.⁸ In this industry, with a highly diversified product, she has been able by an analysis of selected plants, the records of machine sales, and other collateral data, to point out certain major tendencies in the technological changes affecting the industry and how these changes are affecting the market for different classes. In a limited way, also, she has endeavored to ascertain what happened to the individual workers displaced.

If adequate effort is concentrated upon the appropriate research, I believe it may become quite possible for a group familiar with the peculiarities of a given industry and with the discoverable characteristic stages in the evolution and application of technical innovations, to forecast within reasonable limits of accuracy what effect impending changes will have on the labor requirements in the industry. Occasionally we have sudden, unexpected developments, such as the rapid introduction of the "talkies" and the consequent elimination of approximately 50 per cent of the musicians in moving-picture houses. But such rapid changes are exceptions. The great bulk of technological changes are slower, less sweeping in their effects, and better adapted to remedial action.

Need for Compilation of Additional Data by Individual Plants. If in the future we are to gain adequate knowledge along the lines suggested, certain steps are necessary in the basic compilation of data. The key to adequate statistics of labor productivity and labor displacement is the compilation of a large number of individual plant histories on a standardized basis. Farsighted associations of manufacturers, or other interested organizations, might well start a campaign for the development of standardized methods of recording and reporting plant histories. Such records would include the following items:

1. Output per month and per year, in standardized quantitative units if possible. If not, at least in dollar terms, subject to deflation by the best available price index for the industry.
2. Employment in terms of men and man-hours.
3. Classification of employees by occupation on a standardized basis, co-ordinated if possible with the terminology of the census of occupations.
4. Separations, classified by occupation, age, and cause of separation.

⁸Elizabeth Baker, "Unemployment and Technical Progress in Commercial Printing," *Amer. Econ. Review*, September, 1930, pp. 442-466.

5. Plant-hours; that is, plant operating time; and also, machine hours for a selected list of major types of equipment.

6. New investments in plant and equipment, conceivably with adjustments for variations in price level at time of purchase, and, if cumulated, for depreciation and obsolescence.

7. A record of the introduction and extent of use of selected processes or equipment, with the selection made by a special committee for the industry. The items selected would be those representing the technological changes deemed of most importance to the industry from a labor displacement point of view. In coal mining, for example, this might take the form of the number of mechanical coal loaders installed and the fraction of coal loaded with their aid.

8. A descriptive statement, at least, of other major changes believed by the management as apt to affect labor productivity. The difficulty here, of course, is that much of this would be considered confidential.

It may seem visionary to suggest such an ambitious program of record keeping and reporting to industry organized on a competitive basis, with each unit interested in getting the jump on the balance of the industry. I am, in fact, none too optimistic about a widespread actual adoption of the program suggested. Perhaps we should concentrate upon the effort to get adequate records of output and employment in terms of man-hours, postponing the drive for the other types of data. This, however, is but a counsel of caution arising from the fear that if we ask for all that is needed, we may get nothing at all.

LINES OF ACTION, ADAPTATION, AND CONTROL

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A recent survey by the Mellon Institute indicates that there are approximately 1,000 industrial research laboratories in the United States, and that these laboratories employ over 16,000 scientists and possess an annual budget in excess of \$100,000,000 a year.¹ This does not include the less formal research performed by the engineering departments in thousands of enterprises. Forty years ago industrial research was almost nonexistent. During the last decade the number of laboratories increased about 60 per cent. It is safe to predict that industrial research will continue to grow by leaps and bounds, because business enterprises are perpetually striving to outdo each other in achieving economies and in improving their products.

Plainly ours is a society committed to rapid industrial change—one might almost say dedicated to it. Not only is change an important method of making profits, but the government has added to its effectiveness by the patent system which gives innovators monopoly rights in their inventions. Unfortunately competition affords no method by which the benefits of innovations can be balanced against the costs, because both the benefits and the costs fall in large degree upon the community at large rather than upon those who decide whether or not changes shall be made. Whether or not change occurs at the most economical rate, rather than too fast or too slow, is sheer accident.² Competition may compel enterprises to rush through enormously expensive changes which are of relatively little benefit to any one, because, if they do not promptly adopt the new methods, rival firms which do will capture the market. In so far as the costs of change fall upon the community at large—upon those whose property or occupations are rendered obsolete—rather than upon those who make the innovations, change is being subsidized just as much as if Congress appropriated millions to accelerate it. This enormous subsidy, which is woven into our very institutions, is one of the outstanding economic facts of the age. It means, of course, that the cost of change tends to be excessive and that many changes occur at an uneconomically rapid rate. Inevitably the questions arise: What shall we do about the tremendously powerful dynamic forces which our institutions have released? What steps ought we to take to guide and

¹E. R. Weidlein, "Industrial Changes Due to Chemistry," *Annals of the American Academy of Political and Social Science*, September, 1928, CXXXIX, 82.

²The inability of the competitive system to effect an accurate balancing of the costs and the benefits of change is perhaps the strongest argument in favor of communism or some form of socialism.

control them? Is it wise to subsidize change on such a vast scale? How can the cost of change be kept at a minimum and the rate of change prevented from being either uneconomically slow or uneconomically rapid? In a world which is as highly dynamic as ours, can adjustments to changes be trusted to work themselves out or do they need to be guided and assisted? And if they need to be assisted, how can this be done most effectively? In short, we face the basic problem of developing economic institutions which will work reasonably well in a society which is highly dynamic and which is likely to become more so. Obviously the problem has wide ramifications, for it involves the protection of all classes in the community—land owners, owners of industrial equipment, owners of securities, and wage earners—against the consequences of too rapid change. This paper will discuss only a small segment of this general problem; namely, the protection of wage earners against industrial change.

Returns of the unemployment census indicate that less than 6 per cent of the unemployed attribute their idleness to causes which fall under the general heading of "technological unemployment."³ It would be a mistake, however, to infer that the displacement of labor is not a serious problem, because the occupational statistics for agriculture, manufacturing, mining, and transportation show plainly that changes in technique and markets have produced displacement on a large scale. The results of the unemployment census are explained partly by the fact that many changes in technique and shifts in demand produce idleness, not by increasing the lay-off rate, but by decreasing the hiring rate and partly by the fact that many dismissals, which are fundamentally due to labor-saving devices, appear to the workmen to have been produced by seasonal or cyclical causes.⁴

Economists have usually regarded the problem created by technological changes simply as one of helping men adjust themselves to changes in the kind and the location of jobs. This conclusion has rested upon the extraordinarily optimistic assumption that each labor-saving device, by reducing the cost of producing goods, releases exactly enough purchasing power to create a new job for every one which it destroys. This idea is sometimes expressed by saying that technological changes do not create permanent unemployment. But why should we assume that the purchasing power released by labor-saving devices creates exactly enough

³ The title used by the census to cover unemployment caused by labor-saving devices, mergers, etc., is "industrial policy."

⁴ Labor-saving methods that are adopted during the busy season or during a business boom may produce no immediate lay-offs, but, after the busy season ends or the boom subsides, the force shrinks more than it otherwise would. To the men who are laid off, their dismissal appears to have been due to seasonal or cyclical causes.

new jobs—no more, no less?⁵ It is elementary that each technological change creates a new situation with respect to both the supply of labor and the demand for labor. On the supply side, it may release older men from employment and on the demand side increase the need for younger men. Or perhaps it releases men who are capable of doing heavy and fatiguing work and increases the demand for women workers who have deftness and speed. In any event, the existing wage rates are rendered more or less obsolete, for the rates which formerly brought supply and demand into equilibrium no longer do so. Some rates may be too high; others, too low. More than this, however, the wage structure as a whole may be either too low or too high. As a matter of economic theory one cannot assert that it will necessarily be one or the other, but it is important for us to see why labor-saving inventions are likely to render the general level of money wages too high. Such inventions often reduce the cost, and hence the price, of capital goods. Inventions of this kind are likely to necessitate a drop in the money wages of many classes of labor. Otherwise it would pay enterprises to use such a large proportion of capital and such a small proportion of labor in production that the number of jobs would increase less rapidly than the number of job seekers. Wages, however, are a sluggish price—slow to rise and as slow to fall. When technological improvement reduces the price of capital goods, money wages are likely to remain about the same and industry's demand for men is likely to fall below the supply. In other words, in a society in which technological progress is causing prices to fall, the sluggishness of money wages may cause real wages to rise too rapidly.⁶

What actually happens depends largely upon whether independent monetary conditions are causing the general price level to rise or fall. If prices are rising, the tendency for technological progress to cause real wages to advance too rapidly is counteracted by the tendency for money wages to lag behind other prices. On the other hand, when the price level is falling, the tendency for technological improvements to increase real wages too rapidly is reinforced by the tendency for wages to fall less

⁵ It is easy to postulate conditions under which more than enough purchasing power would be released.

⁶ Temporarily, while the proportion of capital to labor is being rapidly increased, there may be substantial growth in the demand for labor, because men are required to make the capital goods needed to increase the proportion of capital to labor. But the number of jobs is soon likely to become insufficient to absorb both the displaced men and the normal increase in the labor supply, because it is possible to increase the proportion of capital to labor by dropping men as well as by adding capital. The decrease (or the slower increase) in the number of jobs occurs in several ways. New plants which attain low costs by using a large proportion of capital and a low proportion of labor threaten the markets of older enterprises which employ a large proportion of labor. Under the pressure of competition some of the older concerns discover many opportunities for getting rid of men. Other concerns are less successful in reducing expenses and lose much of their business to the newer, low-cost enterprises. Still other old concerns cease operation altogether.

rapidly than prices in general. Under these conditions, unemployment may be serious and chronic. In fact, displacement may become more or less cumulative, because the tendency for falling prices and technological progress to leave money wages too high stimulates managers to search more vigorously than ever for ways of economizing labor. As they succeed and as competition compels them to pass on the savings in lower prices, the disparity between wages and other prices widens and the incentive to discover ways of displacing men grows still more compelling.⁷

If technological change affects the number as well as the kind and the location of jobs, a program for dealing with it naturally falls into two principal parts: (1) a program for adjusting the labor supply to changes in the kind and the location of jobs; and (2) a program for preventing labor-saving devices from retarding too much the growth in the number of jobs. First let us consider the problem of adjusting the labor supply to changes in the kind and the location of jobs. There are three general ways of dealing with this problem: (1) retarding the rate of displacement; (2) encouraging the transfer of displaced men within plants by employers; (3) providing better facilities in the labor market for transferring the displaced men between plants and localities.⁸

⁷ Something of this sort appears to have been happening in the United States between 1920 and 1929. During that period, the average price of producers' goods fell by about one-third, but money wages in manufacturing, as measured by hourly earnings, slightly increased. (The Bureau of Labor Statistics dropped the classification "producers' goods" in its index of price movements in 1927. The statement that the average price of producers' goods in 1929 was about one-third below 1920 is based on the assumption that there was no significant change in the average between 1927 and 1929. The fact that there was practically no change in the averages of raw materials, semimanufactured goods, or finished products between 1927 and 1929 indicates that this assumption is undoubtedly correct.) In other words, a radical change in the relationship between wages and the prices of capital goods gave employers a tremendous incentive to discover ways of economizing labor and led them to reduce the number of factory employees by 500,000. It also drove out of business thousands of small concerns which used a large proportion of capital. Even during the relatively prosperous years of 1923, 1924, 1925, and 1926, the failures among the American manufacturers exceeded those of 1921, a year of severe depression. And although the number of factories had been steadily increasing up until 1919, it dropped over 17,000 in the decade 1919-29. A more detailed discussion of the effect of price movements upon employment is contained in my paper, "Market Shifts, Price Movements, and Employment," *American Economic Review, Supplement*, March, 1929, XIX, 1-22.

⁸ Space does not permit a discussion of the contribution which trade unions might make to solving the problem of technological unemployment. One might expect that trade union history would reveal many successful attempts to reduce the impact of technological changes and to help union members adjust themselves to new conditions. As a matter of fact, this is precisely what one does not find. A few exceptions stand out, conspicuous because they are exceptions, such as the oft-cited experience of the Typographical Union with the linotype machine. In most cases, the first reaction of unions to technological changes is to attempt to protect their members against displacement by discouraging the introduction of new methods into union shops and to make work for displaced workers by enacting restrictive rules. Unfortunately, after embarking upon a policy of opposition and restriction, unions find great difficulty in shifting to a policy of guidance and control.

During recent years a heavy displacement of labor has been occurring in the rail-

It is clear that, the slower the rate of technological change, the greater is the possibility of absorbing a shrinkage in the working force by the normal labor turnover. If, for example, the combined resignation and discharge rate in a certain occupation is 25 per cent a year, new methods which dispense with half the force may be introduced without producing many lay-offs, provided the change is spread over two years.⁹ It has been pointed out, however, that, under existing economic arrangements, labor-saving devices tend to be introduced too rapidly because the cost of adopting them falls, in large measure, not upon the enterprises which introduce them, but upon the rest of the community. An obvious way to prevent change from occurring too fast is to assess a larger part of the costs against the enterprises which reap the benefits and one way of doing this is to require every concern to pay a dismissal wage to each man whom it permanently lays off.¹⁰ A dismissal wage would be helpful, of course, in assisting workmen to shift to other occupations, but its real importance would consist in the fact that it would correct a serious flaw in our social cost accounting and would encourage managements to reduce lay-offs to a minimum. The principle of the dismissal

road industry and it is likely to continue. This is an industry in which unions are more or less strongly entrenched. During the immediate future we should have an opportunity to learn, from the actions of the railroad unions, what strong and well-led organizations can do to ease the burden of technological unemployment. Up to the present, the accomplishments of the railroad unions in dealing with the problem have been limited. Two important things, however, have been achieved. In the first place, some unions have organized the shifting of men from one part of the country to another. Most notable is the employment bureau of the trainmen's union in Chicago through which roads needing new trainmen can draw on furloughed trainmen in other parts of the country. On a smaller scale something of the same sort has been done by the shopmen's unions. In the second place, the seniority rule of the railroad unions has been of great value in concentrating the burden of displacement upon the junior men, who, in most cases, are best able to shift to other occupations. It is safe to say that, in the absence of the seniority rule, much displacement would have occurred among the older men and that this would have brought acute distress, because most of them would have been unable to find steady work in other industries. Grave as is the unemployment problem in railroading, it is infinitely less serious than it would have been were the seniority rule not in existence.

⁹ If the resignation and discharge rate is 25 per cent, why could not the new methods be introduced without producing any lay-offs, provided they were spread over two years? For the simple reason that most resignations and discharges occur among newly hired men. Consequently, a labor-saving change which practically eliminates the hiring of men in a certain occupation also reduces the number of resignations and discharges. Although the annual resignation and discharge rate may have been 25 per cent as long as each resignation or discharge led to a hiring, the rate would drop far below 25 per cent as soon as replacement ceased.

¹⁰ It is not possible to estimate in each individual case the cost of a lay-off to the workman. Consequently, it is desirable to pay a standard dismissal wage to all men who are laid off. The amount should vary with the workman's length of service. This would give employers an incentive to retain long-service employees who would probably have most trouble shifting to new occupations or industries. Employees of less than six months' service should receive no dismissal wage. A question of considerable importance, especially from the standpoint of problems of administration, is whether the dismissal wage should be paid to any men who are discharged for cause. Space does not permit a discussion of it here.

wage has long been accepted by business, for it has been customary to pay several months' salary to important executives who are laid off or discharged. During recent years a handful of enterprises (less than eighty in all) has extended the dismissal wage to a few long-service manual laborers. But the dismissal wage is not likely to be adopted on a wide scale unless it is made compulsory. Unfortunately authority to require the payment of dismissal compensation is divided among the legislatures of forty-eight states. In order to encourage the states to act and also to encourage individual enterprises to act in advance of the states, it would be desirable for the federal government to permit corporations which establish reserves for the payment of a dismissal wage to count a part of their contributions to such reserves as a credit on their federal corporate income tax payments. The credit should not be given, of course, unless the funds were vested in independent trustees, and, consequently, the reserve funds should be registered with and approved by the Treasury Department. It would be reasonable to give a credit of fifty cents on the corporate income tax for each dollar contributed to an approved reserve fund.¹¹ Such a credit would cut the cost to the corporation in half.

A second way of preventing the displacement of men by technological changes is to encourage their transfer to other work in the same plant. Here we encounter another grave flaw in our economic arrangements, for employers at present have no adequate incentive to make transfers. And again the dismissal wage furnishes the needed incentive. Experience has demonstrated that, when a thorough search is made for jobs which men with given qualifications can fill, a surprising number will often be discovered. Especially noteworthy is the success of the Western Electric Company in finding work which various classes of handicapped men can perform as well as non-handicapped workers. But searching carefully for jobs to which displaced men might be shifted is not enough. A real effort should be made to create opportunities for transfer by adapting either the work to the men or the men to the work. There is no reason, for example, why we should not use our mastery of science to create the kinds of positions which the labor supply requires. Of course, the market itself provides an incentive to adapt technique to the labor supply, because when a class of labor becomes superabundant and cheap, it pays to invent machines which such labor can operate. When thousands of unskilled European peasants flooded this country and waited for work at every factory gate, engineers soon discovered how this cheap labor could be used to make scores of more or less complicated commodities. But

¹¹ It might be advisable to limit the credit to a certain portion of the tax paid by the corporation. Credit should be allowed also on all payments by corporations into reserves against unemployment, provided the reserves are vested in independent trustees and meet other general requirements imposed in the interest of the beneficiaries.

surely it is not a satisfactory situation when technique is not altered in response to a surplus of men until that surplus has become conspicuously large and represents a grave problem of unemployment. There is need for a method of making technique adjust itself more promptly and in a more selective manner to the labor supply. Such a method is provided by the dismissal wage. Rather than pay \$200 or \$300 to men who have been displaced, it would often be more economical for the employer to reorganize some department or to develop jigs, fixtures, and mechanical aids so that these men could be transferred to other work.

More promising than the adjustment of technique to men is the adjustment of men to technique. In a society as dynamic as ours, it is important that workers be reasonably versatile. Unfortunately industry, instead of producing versatile employees, goes out of its way to develop narrow specialists. Furthermore, the wage payment systems which are in general use, such as piecework and bonus and premium plans, make the men themselves prefer to specialize narrowly and even cause many of them stubbornly to resist efforts to give them a broad training. The establishment of a dismissal wage would give employers a badly needed incentive to develop general-purpose men who can be shifted to other departments or other work when changes occur. It would also encourage employers to retrain men. In order to give the maximum incentive to retrain, it would be desirable to permit enterprises to pay the cost of retraining by drawing on the reserves which are accumulated to provide for dismissal compensation. In other words, these reserves should not be purely dismissal compensation reserves but they should be dismissal compensation and retraining reserves.¹²

The operation of a dismissal wage raises many important problems, which there is not time to discuss. It has been pointed out that reserves should be accumulated in order to assure that dismissal compensation will be paid. These reserves should be created in such a manner that the employers' incentive to prevent lay-offs will not be dulled. In order to encourage enterprises to concentrate lay-offs among the younger employees who, as a rule, can adjust themselves most easily, the dismissal wage should increase with the length of service. A problem of great difficulty arises when a worker refuses to accept the management's offer to transfer him to another job. In case this refusal necessitates his dismissal, should he receive dismissal compensation either in whole or in part? Possibly the job which he rejected pays much less than he has been accustomed to earn. In this case his claim for dismissal compensation would seem to be a strong one. But possibly the job pays almost as much as he has ever earned. In this event his claim seems weak. But where and by

¹²The amount that might be withdrawn to pay for retraining a given man should be limited, of course, by the dismissal compensation to which he is entitled.

whom should the line be drawn? A dismissal wage, if improperly designed and administered, will create an incentive for workers to refuse to be transferred. And what is the good of encouraging enterprises to make transfers if, at the same time, we encourage the men to refuse them? The successful operation of a dismissal wage will depend in large degree upon the skill with which this problem is solved.

But although a dismissal wage is an important method of correcting our system of social cost accounting and although it furnishes employers with a much needed incentive to avoid displacing men, it is not enough. It would not prevent many technological improvements from being adopted at an uneconomically rapid rate. Furthermore, one of the principal ways in which technological changes produce unemployment is by forcing old and obsolete plants to shut down. The whole forces in such plants present a transfer problem. Any society which is highly dynamic and which uses highly specialized labor needs efficient facilities for placing the thousands of men whom industry is constantly throwing on the market. The more dynamic the society and the greater the degree of occupational and territorial specialization, the greater the need for a well-organized labor market.

But precisely what facilities are needed? Let me say emphatically that efficient public labor exchanges, although of great importance, are far from enough. The problem of keeping the labor supply adjusted to the changing requirements of industry is far more than a matter of sending unemployed men to the vacancies for which they happen to be fitted. In fact, in so far as technological changes displace certain types of men and create a demand for other types, the labor supply will probably not correspond closely to the demands of industry. Consequently, the problem of keeping the labor supply adjusted to the ever-changing demands of industry is partly a problem of showing employers how they can use more of the types of men who happen to be available; it is partly a matter of inducing employers themselves to explore the possibilities of using more of these types; it is partly a matter of discovering the occupations to which the surplus men can most easily be shifted; and it is partly a matter of inducing employers, trade unions, or communities to retrain the displaced workers for new employments.

These are to some extent problems of research and they are to some extent problems of inducing action on the part of industry. They require, therefore, an organization capable both of doing research and of creating co-operation.¹³ This need could be met by the establishment of a

¹³ In the state of Massachusetts, for example, workers are being crowded out of the textile and the shoe industries, but the manufacture of women's garments, to a less degree, men's garments is growing. To what extent, if at all, is the possibility of transferring workers from the textile and shoe industries to the branch of the clothing industry? Obviously this question

federal labor board composed of six or seven industrialists and labor leaders with possibly the secretary of commerce and the secretary of labor as ex officio members. The board would be provided with a research staff and connected with industry by a national advisory committee. The federal employment exchanges would be transferred to the control of the board, which would be provided with funds for expanding their services.¹⁴ In addition, it would be given an appropriation to subsidize projects in vocational retraining.

How would the board proceed? Every technological or geographical change presents, in large degree, a unique problem. The number and kind of men who are displaced and the alternative employments for which they are best qualified are never the same. As soon as it became evident that a new machine or a geographical shift would displace labor on a substantial scale, the change would be the subject of intensive study by the technical staff of the board. How many men are likely to be displaced and how rapidly? How can the influx of young workers into the shrinking occupation be promptly stopped? How can employers who need men in the occupation obtain them from other enterprises which are laying off men? Into what other pursuits can the displaced men be most advantageously transferred? What training should they receive before being shifted and how and by whom should it be given? The technical staff would prepare a tentative plan which would be submitted by the board to the industry. After receiving criticisms and suggestions, the board would prepare a revised plan which it would ask the industry to accept. The board would, of course, have no power to compel acceptance of its recommendations. Its effectiveness would depend upon the reasonableness of its suggestions and the respect which its members, by virtue of their ability and fairness, would be able to command.

There is, however, one important legal tool with which the board might be equipped. That is power to attach conditions to patent grants for the purpose of protecting men against displacement. No one will question the general policy of encouraging invention by giving patents to inventors, but if the government grants a patent, surely it is fair to require that reasonable steps be taken to avoid unnecessary displacement of labor. Whenever it appears that a new invention is likely to create a serious problem of displacement, it should be the duty of the patent office to refer the matter to the federal labor board and of the board, after investigation, to draw up reasonable rules for the protection of labor. The board should also be authorized to intervene on its own initiative in case

only after special investigation. This means research. After research has supplied the answer, industry must be persuaded to co-operate in assisting the transfer. Possibly the communities and trade unions must be induced to help.

The federal government co-operated with the states in providing a joint federal-grant-in-aid would be administered by the board.

an invention appears to threaten serious displacement. The patent should be granted only in the event that the applicant accepts, both for himself and for his licensees, the reasonable requirements of the board. In particular, patents which are likely to produce serious displacement should not be granted unless the applicants agree both to provide a reasonable dismissal wage and to co-operate in providing reasonable facilities for retraining the displaced men.

Permit me to add a word about the problem of vocational retraining and the federal labor board's relation to it. At present, we have practically no experience to guide us in handling this important problem. We do know that the problem involves great difficulties, because it is not easy to induce men to prepare themselves for a new occupation unless they feel reasonably sure of getting employment in it, and it is not possible, as a rule, to assure displaced men of jobs. We also know that the problem varies from locality to locality and from industry to industry. In some cases there may be an opportunity to transfer men into an industry where plants are large. In such instances, it may be best to provide the training in the plants which hire the men. But when men are to be transferred into small plants, such as garages or women's garment factories, training must be given by the community or by a number of co-operating small plants. Several of the most notable retraining experiments have been sponsored by trade unions and in many instances the co-operation of unions should be exceedingly helpful. In view of the fact that the problem is different in every situation, the best way to promote retraining is to give a central body such as the federal labor board an appropriation to subsidize retraining projects which it approves. A national body, such as the board, would be in a position to take the lead in initiating projects when and where they were needed and to support them as long as the need lasted. It would be able to apply in each place the experience gained in other places and to avoid making the same mistake too many times. It would be in a position to command the co-operation of individual employers, trade associations, trade unions, and the local communities. It would undoubtedly act more promptly, with better judgment, with richer experience, and with more vision than any other body.

What can be done to prevent technological improvements from producing unemployment by causing wages to become too high relative to the prices of capital goods? It is possible that the widespread adoption of the legal dismissal wage, by retarding the adoption of labor-saving devices, would reduce the displacement of labor sufficiently to counteract the too rapid rise in the price of labor relative to the prices of capital goods. But one cannot be certain of this. In the event that the number of jobs fails to increase as rapidly as the labor supply, what can be done?

An obvious suggestion is to reduce wages. But there is no machinery for doing this and it is difficult to see how such machinery could be constructed. Another alternative would be to stimulate the accumulation of capital. If the proportion in which it is most economical to combine capital and labor has changed from, say, six units of capital for each laborer to seven units of capital for each laborer, it is obvious that an increase of one-sixth in the amount of capital is needed in order to prevent unemployment. The more quickly this increase is achieved, the more quickly will unemployment be eliminated. Unfortunately our apparatus for regulating the rate of capital accumulation is even less adequate than our apparatus for controlling wages, and there is small prospect that we shall soon be able to control the annual additions to capital. Still another alternative would be to inflate the general price level slightly. As wages are not highly sensitive to price changes, a small rise in other prices could occur without substantially affecting wages. Thus the proper relationship between wages and the prices of capital goods might be restored. As yet we lack instruments upon which we can rely to inflate prices slightly but not too much; that is, without permitting the inflationary movement to get beyond control and go too far. Possibly within a decade or two we shall possess them. At any rate, the policy of slight inflation has more practical possibilities than either the policy of controlling wages or the policy of accelerating the accumulation of capital.¹⁵

But is there no prospect of more immediate relief when labor-saving devices prevent the number of jobs from keeping pace with the supply of labor? It is frequently suggested that unemployment be converted into leisure by reducing the hours of work. The trend of working hours has been downward for well over a century but most cuts in hours have been the result of bargaining. Unfortunately, when working hours are determined in this way, reductions are likely to occur most slowly at precisely the times and the places that labor-saving devices are producing most idleness. Undoubtedly we need the planned creation of leisure in exactly sufficient amounts to prevent technological unemployment, but reducing the hours of labor involves more problems than is ordinarily suspected.

Working time may be cut by reducing either the working days per week or the hours per day. Today the proposals most frequently discussed are the five-day week with an eight-hour day and a six-day week with a six-hour shift. It is usually assumed that a six-hour shift would mean two shifts a day. From the non-economic point of view, the five-

¹⁵There are reasons why a slow inflation is undesirable as a steady policy. In fact, although slow deflation greatly accentuates the problem of unemployment, it is probably to be preferred on general economic grounds under most circumstances both to an absolutely stable price level and to a slowly rising price level. Rapid deflation is, of course, an entirely different matter.

day week with the eight-hour day is preferable to the six-hour shift six days a week, because a week-end of two days can be used more advantageously by most workmen than two hours of additional leisure each day. Furthermore, if the six-hour shift means the use of two or more shifts a day, interference with family life may result when one member of a family works on a morning shift and another member on an afternoon shift. From the economic point of view, however, the five-day week has the grave disadvantage that it is likely to decrease rather than increase the number of jobs and hence increase the volume of unemployment. It is generally assumed that the five-day week will be coupled with an increase in hourly wages sufficient to counteract the reduction in working time. Otherwise the shorter week would not be acceptable to the men. But the unemployment which the five-day week is intended to remedy arises because money wages have become too high relative to other prices, particularly the prices of capital goods. If hourly wages are raised to offset the reduction in working time, the disparity between wages and other prices will, for some time at least, be aggravated. Will not this largely, if not wholly, cancel the effect of shorter hours upon the number of jobs? Eventually, of course, the effect of higher wage rates may be translated into higher prices for commodities in general. In the meantime, however, the higher hourly rates will tend to keep down the number of jobs. Whether this effect more than counteracts the gain from the shorter work week depends upon the elasticity of the demand for labor. Since it is probable that the demand for labor is elastic, no one can be surprised if the five-day week with one shift of eight hours and a compensating increase in wage rates aggravates rather than diminishes the problem of unemployment.

Far more promising as a method of converting unemployment into leisure is the six-hour shift, provided that the six-hour shift means the use of two or more shifts each day. This method, it is true, might create a transfer problem of some magnitude in the labor market, because the substitution of two six-hour shifts for one eight-hour shift would enable the more efficient plants to capture a larger share of the business and would compel some of the less efficient plants to shut down. The total number of jobs, however, would probably be increased rather than decreased because the advance in hourly rates necessary to compensate for the reduction in working hours would in most cases be more than offset by the savings in overhead made possible by the use of two six-hour shifts each day. Suppose, for example, that the overhead and the direct labor cost of a plant operating forty-eight hours a week are precisely the same. The plant changes to two six-hour shifts a day and raises wages exactly enough to compensate each employee for the reduction in his hours. If output rises in precise proportion to the increase in

the hours, unit cost will fall by one-sixth. Of course, in industries where overhead is small, the saving from the use of two shifts might be insufficient to offset the higher wage rates. It seems plain, however, that if labor must be compensated for the reduction in hours, the only way to destroy unemployment by converting it into leisure is through a plan which permits industry simultaneously to achieve substantial savings in overhead.

But how could a movement to reduce hours be initiated and carried out? Who would determine when shorter hours were needed and who would persuade business enterprises to reduce them? Clearly there is little hope of reducing hours by law, for here again the government's authority over most branches of industry is divided among forty-eight state legislatures.¹⁶ Probably the body best able to induce competitors simultaneously to cut hours would be the federal labor board. Its close and constant contact with the problems of technological unemployment would give it intimate knowledge of when and where cuts in hours were needed.¹⁷ The board would probably find it wise not to attempt to effect a more or less general shortening of hours in all industries but rather to accelerate reductions in those industries where changes in methods or markets were producing a large displacement of men. These reductions would probably not entirely prevent the displacement of workers but they might be sufficient to adjust the total number of jobs in all industries to the available labor supply. Furthermore, they would occur, for the most part, where they would do the most good. The board's success in inducing industry to cut hours would depend upon conditions. Undoubtedly its success would be greater in industries where technological progress was enabling enterprises to achieve substantial economies than in industries which were being destroyed or reduced in size by progress in competing industries. And, of course, its success would depend partly upon the strength and the vitality of the labor movement. The moral influence of vigorous trade unions is great even in industries in which union membership is small.

For two centuries now, we have permitted the Juggernaut of industrial revolution to run wild. We have developed institutions which subsidize change on an enormous scale and which cause it to occur far more rapidly than in any previous age. And yet we have failed, for the most part, to

"Do legislatures possess the constitutional authority to compel a reduction in the hours of male adult workers for the purpose of reducing unemployment? This question has never been decided by the courts. Some of the more reactionary courts might deny the authority. Nevertheless, the elimination of unemployment would appear to be a legitimate public purpose and there is reason to believe that the more enlightened courts would sustain reasonable legislation for its accomplishment.

"The board would require for its guidance far more accurate statistical information than is now available concerning the number and kind of displaced men who had not been absorbed by industry.

recognize that change presents a major social problem; we have made almost no effort to keep down the cost of change or to prevent change from occurring at a wastefully rapid rate. We have done virtually nothing to assist men to adjust themselves to industrial changes. Almost without raising a little finger to prevent it, we have permitted the development of industry to wreck thousands of lives and to produce an enormous human scrap heap. Prominent organizations of employers have resisted all efforts to modernize the labor market as stubbornly and as bitterly as any trade union ever opposed the installation of labor-saving devices. After two centuries of industrial revolution is it not high time that we recognize that change is bound to occur too rapidly and to produce misery and degradation unless it is controlled and intelligently directed and unless men are assisted to adjust themselves to their new environment? Is it not high time that we recognize that change is now occurring on such a vast scale that we can no longer simply permit it to happen regardless of the consequences which it produces? Surely if we deliberately stimulate change, we should go out of our way to protect those who are injured by it. The suggestions which I have advanced are conservative and would fall far short of adequate protection. But they would be an immense improvement over doing nothing and they are probably sufficient for a first step. Long enough we have accepted the naïve and fatalistic philosophy that everything will be all right provided only we carefully refrain from attempting to make it all right. Let us recognize clearly that few forms of industrial waste bulk larger than the unnecessary costs of progress and that few economic problems are more important or more difficult than this problem of how to control change so that it will occur less wastefully and will inflict less misery.

DISCUSSION

LAGUE.—The first point I should like to mention is Professor Hansen's theory of labor costs vs. capital costs. To quote: "Were it not for institutional frictions preventing the prices of the factors from shifting with changes in productivity, there would be no technological unemployment." This is due to the failure of the pricing system to adjust itself to changes in the relative productivities of capital and labor at the margin; this failure, according to Professor Hansen, causes labor to be overpriced in relation to capital and therefore creates unemployment. Still another way of saying it is that the price of labor has become too high.

I am not wholly in disagreement with this theory, but there is one fact which puzzles me. If labor is overpriced and unemployed, capital is underpriced and in great demand. Then how does it happen that in nearly every industry in the country we find that excessive plant is mentioned by Professor Jerome? Isn't it true that capital, too, is unemployed on a large scale?

Not talking about the present depression, but about the prosperity of the late twenties, a few industries actually did operate at capacity for a few months during this period—steel in the early part of 1929, copper and automobiles in 1928. But what about the great majority of industries which, during their most feverish prosperity, never enjoyed capacity operation at any time? What about boots and shoes, leather tanning, cement, textiles, etc.? Will due allowance for the shifting of industrial production which is now taking place (the growth of new industries and the decline of old ones) make it true that nearly all the important industries in this country are operating at capacity? And is it not this unemployed capital which is responsible for the unemployment of labor?

There may be an explanation for this. Perhaps there is a great demand for new capital. Technological change may be rendering existing capital equipment obsolete so fast that it never gets used to its full capacity. We might have a great demand for certain new kinds of labor equally insistent—for example, the hosiery industry in Philadelphia several years ago when wages reached a height of \$100 or more a week for especially skilled workers. The point to make is that technological changes may be so rapid and so fundamental that they bring about a condition in which all factors of production may be simultaneously unemployed.

Does not this show that mere adjustment of the wages of labor would not solve the problem? Professor Hansen spoke of institutional factors preventing the prompt adjustment of wages to the marginal productivity of labor. I would like to call attention to equally important institutional factors of another sort—particularly the institution of long-time contracts at fixed rates of interest, usually in the form of bonds or rent contracts. Increased technological change exerts a downward pressure on the price of the product. But since these contracts guarantee a fixed return, they result in the appropriation of a larger proportion of the total product by the creditors of the business, so that they might force violent readjustments in the other returns—say, the return to labor—without the situation being fully remedied.

Thus I find myself in complete agreement with Professor Slichter in calling for monetary and credit arrangements of some kind which would bring about a steadily rising price level at a low rate, perhaps 1 per cent per year. I might mention another suggestion which has been made many times before. If labor, in the interest of full employment, must take a cut in wages commensurate with the decline in prices, then the bondholders might also be asked to take a cut—say, a reduction of 1 per cent in the interest rate on each bond. Thus both sets of returns might be repriced on a common basis, and the employment of both factors correspondingly improved.

I think the point finally comes down to this. Whatever may be the volume of technological unemployment ascribable to the changed marginal productivities of labor and capital, it will be small in comparison with the amount of technological unemployment of labor and the idle capital equipment which can be attributed to the influence of institutional factors affecting them both.

Professor Slichter raises the question of controlling the creation of new machines; he proposes further regulation of patents. I believe there may be something in the suggestion that the taxing power of the government would be of some use in this connection. Certain of our so-called nuisance taxes—those on tobacco, cigarettes, theater seats, even automobiles—tend to withdraw purchasing power from the consumer, and one of our basic difficulties is the creation of enough consumers. Might it not be possible to work out a method of taxing machinery and equipment which would tend to slow down their development?

I am in complete agreement with Professor Slichter on the dismissal wage. We do not need to justify these payments solely on the ground that the worker has certain rights in the job; we might equally well justify the dismissal wage as a method of regulating the investment of new capital. As to its efficacy, I might point out that in our study of the New Haven rubber workers laid off by the U. S. Rubber Company we found that the dismissal wage, added to whatever earnings the workers were able to make in the interval, was sufficient to carry the families at the old standard of living for nearly a year. This would be long enough to enable most workers to find a new steady job.

No commentary on Professor Slichter's paper would be adequate without some mention of his federal labor board. It is evident there is no existing machinery to take care of the problems of technological displacement. One of the functions of such a board would be to obtain from industry some reasonable action on the problems of displacement. But Professor Slichter is going to make the board purely advisory, leaving it to industry to accept or reject suggestions as it pleases. I think we all realize the difficulties and dangers of giving much power to such a board. Nevertheless, I should like to see in it a little more of the Wisconsin idea. You may remember that some weeks ago Governor LaFollette presented his unemployment insurance program to the Wisconsin manufacturers. He told them that if industry would by voluntary action adopt private unemployment insurance plans, all right; otherwise, a state law. There is a great deal to be said for that kind of voluntary action in matters of this sort.

Professor Slichter speaks of the "ability and fairness" of the board members commanding the respect of industry. I think he should have explained how he would propose to get such men appointed. There are many excellent men in the government service, even on boards and commissions, but some of us who have been repeatedly disillusioned about appointments in recent years cannot help being skeptical. And so very much would depend upon the choice of members of the board.

Professor Jerome has thoroughly and ably covered the problem of measurement. There are many details yet to be ironed out, but I find nothing with which to disagree in his presentation. There is one point which I think he might properly have touched upon: What is the usefulness of measuring productivity changes? Some critics have questioned the value of such work, and, while I do not agree with their conclusions, the question requires an answer. Do we need productivity measurements to enable us to take the steps toward control which Professor Slichter advises? Would economic theory be at all influenced by the computation of reasonably accurate and acceptable data on productivity changes? We need further exploration along this line.

R. E. MONTGOMERY.—These brief remarks must, in view of the practical circumstances of their preparation, be confined to Professor Slichter's paper alone, and cannot be more than passing comments on some of the aspects of his program or observations on matters of relative emphasis.

The major thesis—that change is subsidised under our present system to a dangerous extent, that the costs fall in large part upon members of the community other than those initiating the changes, that instruments for controlling the rate of change must be discovered and utilized, and that part of the cost must be put upon those benefiting from technological change—has been presented so clearly as to render elaborative comment superfluous. Disagreement with this general thesis would, I suppose, have to rest chiefly upon the assumption that until we abandon more completely than we have the precepts of *laissez faire*, interference with the rate of change, effected by legal dismissal wages or by other devices, would introduce complications and costs so important as to dictate as the better alternative a policy of letting technical changes work themselves out unhampered and the adoption of some form or other of social maintenance for those elements of the community upon whom the burden falls most heavily.

Mr. Slichter's paper is, I think, itself the answer to this dissenting thesis, especially the earlier sections where he discusses in some detail the likelihood that introduction of labor-saving devices will leave wage rates too high in relation to the price of capital goods and suggests necessary qualifications to the optimistic conclusion of the economists with respect to the long-run relationship between introduction of labor-saving devices and the number of jobs available.

The program sketched in this paper does not depend for its justification upon the assumption that technological changes are going to occur at a more rapid rate in the future than in the past; and it may therefore not be entirely relevant to suggest the desirability of further discussion of this assumption. Whether those changes, technical and other, which produce maladjustments

and necessitate rather complete cyclical readjustments are going to become "steadily more important" is of course a question that has been discussed in detail many times. There is still opportunity, however, for clarifying discussion and investigation.

The most valuable comment that can be made upon Mr. Slichter's discussion of the relationship between introduction of labor-saving devices and the number of jobs available is, it seems to me, a word as to the importance of making the kind of refinements he does upon the traditional reduction of cost and elasticity of demand which have lead economists to their optimistic conclusion that enough new jobs are created to reabsorb those men who are displaced. While it may be taken as almost axiomatic that each change creates a new situation with respect to the supply of and demand for labor, we can make little progress in getting at a question, such as that of the circumstances under which the six-hour day may be introduced without the compensating increase in wages having the effect of increasing rather than diminishing unemployment, unless we proceed in our theoretical analysis somewhat along the pathways his paper suggests.

From the viewpoint of one who agrees that "it is high time to recognize that change is bound to occur too rapidly and to produce misery and degradation unless it is controlled and intelligently directed" there is, it seems to me, little opportunity for quarrel with Professor Slichter's program for adjusting the labor supply to changes in the kind and location of jobs. The practical consideration in connection with federal encouragement to the setting up of dismissal wage reserve funds through the inducement of reduction in corporate income tax payments and in connection with getting into operation a federal labor board which could achieve the program outlined for it and at the same time "command the respect and confidence of business men" are, it is almost trite to say, full of enough difficulties to be conducive to mild pessimism rather than to optimism. Certainly, however, there is much opportunity for an exploration of the possibilities of the widespread adoption of the legal dismissal wage in retarding the adoption of labor saving devices and thus reducing the displacements of labor sufficiently to counteract the too rapid rise in the price of labor relative to the prices of capital goods.

BORIS STERN.—In the course of my recent studies on technological displacement of labor I was called upon time and again to determine what is really meant by technological change and particularly to define the scope and the extent of its influence. In the following two examples both of which are taken from my own field work I hope to convey to you the difficulties with which one is confronted in this comparatively new field of research and to emphasize the need for a generally accepted definition of the terminology and the scope of this type of study. My first example is from the amusement industry. The most revolutionary technological change in this industry in recent years was the installation of sound equipment in the motion picture theatres, which resulted in the immediate displacement of more than 50 per cent of the musicians formerly employed to accompany the silent pictures. Indirectly, however, the introduction of sound affected the entire field of amusements. Whether due to the novelty of sound pictures or to some other

use, the majority of the legitimate and vaudeville theatres in the country found themselves without patronage and were compelled either to close up or to revert to motion pictures, eliminating the artists, musicians, stagehands, and other help formerly employed in these theatres. Are these workers also to be classified among the technologically unemployed in the amusement industry?

The impact of the change from silent to sound pictures went further than that. The rapidly declining demand for musicians seriously affected the domain of teaching music, with the result that a very large proportion of music teachers found themselves without means for a livelihood, thus still further swelling the ranks of unemployed musicians. I could go on and come to trace the effects of this single change in the motion picture theatres, extending beyond the amusement field into several other industries only not closely related to this field. The question is, are we to make a complete investigation of our entire economic and social order each time one undertakes to study the effects of some technological change in a single industry. In my second example I was confronted with a different set of circumstances. The industry in question is comparatively young, but has grown very rapidly in the last decade or so. The Bureau of Labor Statistics productivity index for this industry shows a large increase in the labor productivity which has been accomplished in the brief span of a few years. Upon visiting several major plants I was much surprised to discover that the increase in the productivity has not been accomplished by the usual means of what are generally known as labor saving devices or new machinery. In fact, the industry still employs a very large proportion of skilled workers on a piece work basis and can still be classified as belonging to the semiautomatic stage, with a decided predominance of hand work. Further inquiry as to the causes of the increased productivity of labor in one of the largest plants in the country brought out the following major factors: standardization of the product; a change in the cost accounting system which resulted in an improved coordination of the numerous semi-independent factory departments engaged in the preparation of the various parts which make up the final product; a change in the labor policy of the plant which resulted in a reduction of the labor turnover from 200 per cent in 1920 to less than 40 per cent in 1929 and slightly over 10 per cent in 1930. It was the belief of the general manager that the reduction in the labor turnover of the plant was more responsible than any other single factor for the large increase of its labor productivity. Are these unquestionably real causes of labor displacement to be classified as technological changes, or are we to devise another set of terms to differentiate them from changes in methods of production and in machinery?

Confronted with these and similar complications in my field work I was compelled to adopt a set of rules which I venture to present here as a starting point towards a general definition of the term "technological change" and towards a reasonable limitation of the scope of influences attributed to this factor. I was compelled to limit the effects of technological change strictly to the individual industry in which this change took place. Within the industry and particularly within the walls of a single plant, I was compelled

to classify as technological change any change, either in the nature of the product, in the method of production, in the type of labor or in the equipment or machinery used which resulted in a higher productivity, therefore displacing labor. This in accordance with the actual conditions in the plants where, if ever, is it possible to segregate any one factor that could be singled out as "the cause" of the increased productivity of labor in the plant.

With technological change thus defined and limited, the problem of measurement does not present any particular difficulty. Its natural yardstick is the quantity output per unit of labor time, the unit of output varying in different industries. This seems to be the underlying plan of the series of productivity studies which the Bureau of Labor Statistics has been carrying on for several years. I should extend these studies over a larger number of industries than heretofore practised by the Bureau. Besides I should also expand our industrial census to include such additional information as is necessary to enable us to build up a series of continuous industrial indices of labor productivity, in the principal industries. Their primary object should be to focus our attention on the particular industries which show a rising index, thus inviting a more intensive survey of the industry in question. Finally, I should inaugurate a series of larger industrial surveys covering the several industries affiliated in any one field, such as fuel, transportation, amusements, etc., to determine the effects of technological change on the entire group. If labor is displaced in the coal industry, either because of labor saving devices or because of a decreased demand for coal, it is as pertinent to know to what extent the labor released in the coal pits can find employment in the oil industry or in the production and distribution of gas and electricity. Similarly, if the railroads and street cars are cutting down their labor we should know at least what opportunities of employment exist in the newer branches of transportation, such as bus lines, taxicabs, aeroplanes, etc. In the course of these larger surveys it will indeed be desirable to incorporate sample follow-up studies of what actually happens to the groups of workers displaced because of technological or other change in the industry.

With this triple attack on the question of technological change (that is, building up with the help of the census bureau a series of continuous industrial indices, continuing and extending the productivity studies of the Bureau of Labor Statistics, and inaugurating a series of industrial surveys covering groups of affiliated industries), we shall indeed be in a much stronger position than heretofore to cope with the economic and social problems which are the inevitable result of this dynamic force in our industrial structure.

I am glad to note that my outline differs only slightly from the plan presented by Professor Jerome. It is less ambitious and for that reason perhaps easier to fulfill. I certainly do hope that this is the type of study which Dr. Slichter intends that his proposed federal labor board should carry out.

ALBION G. TAYLOR.—A proposal to reduce the subsidy received by those who initiate technological change arises from an old controversy among economists. The necessity of governmental control to check the unhappy effects of too rapid change upon workers was pointed out by John Stuart Mill in the

part of their costs, contending that the subsidy is now being borne by "those whose property or occupations are rendered obsolete."

A plan for a readjustment of cost burdens calls for certain additional burdens on behalf of those who previously provided the subsidy, or they continue to supply it through other channels. A dismissal wage, while primarily as an incentive to reduce lay-offs, would also shift to consumers which introduce labor-saving devices more of the costs which now fall on the worker. Any such reapportionment of costs would be met by an attempt to return the burden to the shoulders of wage earners in some manner. The government bearing a part of the dismissal wage through the decreased income from income tax might seek other revenue through applying a sales tax, tariff, or other levy which would decrease real wages. On the side of entrepreneurs, who assume a portion of the new burden of the dismissal wage, attempts might be made to shift that burden into the price field and thus shift it again in part upon the worker.

The moral effect of a dismissal wage upon the worker would probably be wholesome if he contributed somewhat toward it, but both he and his employer should be fully conscious of that contribution. This suggestion is not because of any hope of an exact allocation of costs to the employer, the worker, and the state, so as to provide an incidence which is just. The psychological effect upon the worker would alone justify a plan which makes the worker cooperate with his employer in providing against the day of unemployment. A happy medium must be found between social responsibility for victims of technological change and the individual's concern for the security of himself and his dependents.

Professor Slichter notes that the dismissal wage is not likely to be widely

is unique in that it provides what appears to be a strong incentive. It motivates the retention of workers and makes them versatile through retraining. Another line of attack might serve quite as effectively in preventing technological unemployment if it were also accompanied with so forceful an incentive. If the profits of innovators possessing legal monopoly rights were reduced, prices conforming more nearly to lowered costs, consumers' purchasing power would be enlarged and the chain of forces which build for employment would be set in motion. This demands control which has been alien to the spirit of American institutions. Control of prices to insure some relationship with costs awaits an incentive which will insure proper legislation and the administrative co-operation necessary to its success.

The creation of a federal labor board as suggested, adequately equipped and financed, might command co-operation from industry. The history of other federal boards, possessing only power to investigate and recommend, is not encouraging. The scope of service rendered by such a labor board falls short of meeting the problem of present-day industrial maladjustment. Technological progress should go on unhampered, but with a fair apportionment of costs and incomes. Our industrial evolution continually leads toward a much larger use of the machine, and toward men of superior endowment and training who need to think and invent. This evolutionary movement should be guided by a force which attempts to co-ordinate better production and distribution. In the absence of such control a practical dictatorship may be thrust upon us. The times demand a system of economic organization and control which is embodied in the new principle of economic planning.

SESSION ON ECONOMIC ORGANIZATION AND THE CONTROL OF INDUSTRY

THE STABILIZATION OF BUSINESS AND EMPLOYMENT

By HENRY I. HARRIMAN

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The United States of America, in common with the rest of the economic world, is passing through a cyclical depression of great magnitude. Like all previous major depressions, this period is accompanied by widespread unemployment, a marked reduction in earning power, a diminution in sales, and, in general, economic disarrangement and distress.

In a time of great economic upheaval, it is natural to emphasize its gloomiest aspects and to believe that no cycle of equal severity has ever before been experienced by our people. A study of our economic history, however, reveals the fallacy of this assumption.

The great depressions beginning in 1873 and 1893 undoubtedly entailed greater relative loss and suffering. To recall some of the phases of the depression of the seventies, with its prolonged and bitter strikes, the stoppage of railroad transportation, drastic reductions in wages, the bitter antagonism between employer and employee, and the necessity for calling out federal and state troops in many cities, should convince us that we have advanced far in our social relations and general welfare. A comparison between conditions during the panic of 1893 and our present situation would reveal an equally striking contrast.

The most significant difference between this depression and previous ones is the better spirit which now exists between employer and employee. Today we find not a few but thousands of firms adopting work programs to rotate the available jobs among their workers. Instead of reducing the number of their employees to a minimum and retaining a few while others are dismissed, employers today are dividing among the largest possible number of their employees the work which is available. Our people have come to recognize their obligation to mitigate suffering and distress through unemployment, and they appreciate that every man and woman should have an opportunity to work at fair wages for reasonable hours and with every possible assurance of continuity of employment.

Encouraging as these considerations may be, they do not minimize the seriousness of the present situation, and I approach with much hesitation the task of discussing the stabilization of business and employment. I do, however, approach it with a complete consciousness of the duty which business owes to the community to help in bringing about normal and stable conditions and a desire to suggesting remedies which will, in

part, obviate the severity of the present depression. The present economic system is, indeed, on trial.

I feel that the task involves two considerations: first, the causes which have contributed to the intensity of the present depression and, second, the long-time remedies which may be suggested to prevent its recurrence.

Causes of Depression. There have been twenty-two periods of business depression in the last seventy-five years. Of these, eleven have been of comparatively minor intensity and length, eight have been more severe, and three have been extreme and prolonged.

Business produces because of its desire for profit. Possibilities of greater profit induce speculation and overproduction. These, in turn, bring about a surplus of goods, a corresponding lowering of prices, and finally the disruption of business and unemployment, with resultant underconsumption. The accumulated surplus of the previous period of expansion is exhausted; as a result, production is resumed and there is a return of prosperity and employment; and thus the upward and downward swings are continued. While we cannot expect with our present knowledge and experience to prevent recurring depressions, let us hope that the depths of the valleys of future depressions may be reduced by avoiding preceding periods of overexpansion and undue speculative activity.

Thus far economic science has not completely isolated the factors which determine the severity and length of depressions. In general, it is recognized that periods of unusual and speculative expansion are followed by periods of marked economic depression. Great wars undoubtedly cause the greatest expansion of human effort and cause the most complete disarrangement of the normal economic life. A study of statistics discloses that all of the really great and prolonged wars of modern times have been followed by periods of speculative readjustment, which in turn have been followed by periods of most severe depression. Colonel Ayres has pointed out that the two great wars in which the United States has been involved—the Civil War and the World War—have both been followed, at a period of about two years, by a sharp but rather short depression, and after a period of ten years by a most severe and prolonged depression. Without attempting to lay down any rule of periodicity, it is clear that great wars are always followed by great periods of speculation and expansion and recurrent periods of severe depression. But wars are not the only cause of depressions. The period of excessive railroad expansion of the seventies and eighties was followed by the depression of the nineties. Great catastrophies are also followed by depressions, and without attempting to say that action and reaction are equal in economics as in physics, it may, in general, be said that periods of speculative activities, whatever their cause, are followed by periods of depres-

tion, and that if we would minimize future depressions we must minimize prior periods of speculation and expansion. Speculation in its most reprehensible form has always accompanied periods of unusual prosperity. It has manifested itself by inflation of values in lands, securities, and commodities, by overexpansion of productive capacity, and by overextension of credit. This type of speculation is harmful both in its material and its moral effect upon the individual. Values of credit resources, the buying power of the people, and business confidence would improve if undesirable speculative activity could be banished or diminished and business continued from year to year on a reasonably steady basis.

Technological Unemployment. Many observers attribute our widespread unemployment to the rapid progress which industry and agriculture have made in the use of labor-saving machinery. This unemployment is termed "technological." I cannot, however, accept this theory. Advances in the arts have reduced the price of commodities and have increased the sum total of human desires and the ability to satisfy them. It is an indisputable fact that despite the displacement of working men and women by machinery, the proportion of our population gainfully employed in our factories and other activities was as high in 1929 as in 1899. These are years for which the census of manufactures is available. In 1899 the average number of wage earners in our manufacturing establishments was 4,700,000, and they constituted 6 per cent of our entire population; in 1929 the number of wage earners had risen to 8,700,000, and constituted 7 per cent of our population. Likewise, in 1900, 29,000,000 people were employed in gainful occupations, or 38 per cent of our population; in 1930 the number gainfully employed was 40,000,000, or substantially 40 per cent. Such figures have particular significance because during the thirty years in question there was a large relative decrease in our farm population.

Furthermore, while the number of men and women employed in gainful occupations has increased in substantially the same ratio as the population, it is also an arresting fact that during the same period the weekly hours of work in manufacturing establishments were substantially shortened—certainly by as much as one-eighth and probably by as much as one-sixth. If hours of labor have been excessive, a reduction in hours may often be accompanied by an actual increase in productive capacity. It is doubtful, however, whether the recent reduction in the hours of work has resulted in increased output, and this shortening of working hours is one of the factors which has enabled our factories to maintain a constant or increasing ratio of employment to population.

During the last thirty years there has been a great increase both in productive capacity and in consuming ability. This has been accompanied

by a shortening of the hours of labor and a very substantial increase in real wages.

Professor Douglas of the University of Chicago after a careful study of the real wages of fifteen millions of our population estimates that real wages have advanced during the last thirty years by as much as 80 per cent. Whether these figures are actually correct is not to the point. It is significant, however, that the period of expanding production through the use of improved machinery has been accompanied by a shortening of the hours of labor, by a better standard of living and an increase in real wages, and by the maintenance of an equal quota of our population in gainful occupations.

While I cannot accept the theory that "technological" improvements are the primary cause of unemployment, no one will doubt that such improvements may be a serious factor in causing temporary unemployment, particularly if this advance has been extremely rapid. When men are displaced by machines, they should be trained and assigned to other work, wherever possible.

Remedies for Depression. Any consideration of remedies to lessen the heights and depths of business cycles must take into account the changed economic conditions of our population in the last fifty years. During the early decades of the last century our population was largely agricultural, and if at times there was a large overproduction of any article with a consequent lowering of its price, the farmer still had his home and raised the major portion of his sustenance. Thus the balancing of supply and demand under the workings of the natural laws, while accompanied by hardship, was not in general accompanied by actual starvation and want. Under our present highly specialized form of production the balancing of supply and demand by natural laws entails discharge of men from industry, loss of wages, and consequent inability to purchase food, fuel, and shelter. Thus the workings of the natural economic laws entail much greater hardship in our complicated civilization than in the relatively simple life of our early history.

We must likewise recognize that our country is fast reaching a period of stabilized population. During the last century the population of the United States grew from three million to one hundred million souls. Now the rate of increase has slackened and the careful studies of qualified experts indicate that the population of this country will probably never exceed one hundred sixty millions—that figure being reached by the end of the present century, followed in the estimation of some by an actual decrease.

The industrial philosophy of the nineteenth century looked to an ever-increasing population to keep a satisfactory balance between supply and demand. It was the theory of both the economists and industrialists

century cannot be tolerated today, because the unwise action of individual may adversely affect the lives of thousands and we have hastily left the period of extreme individualism and are now living in a period of national economy which must be recognized as the controlling factor.

Under our form of industry a very large portion of the national income is distributed through the instrumentality of industry and business, the distribution being in the form of wages, salaries, rents, interest, and dividends. If, then, industry is to pay high wages to people working a reasonable number of hours and is to set up reserves in time of prosperity for unemployment benefits and to provide means to care for accidents, sickness, and old age, as I believe should be the case, business must be on a sound and profitable basis. Cut-throat competition, excessive dividends and interest must be earned and paid, and to do this production must be balanced with consumption.

Producers in general would prefer to gauge their output to the carrying capacity of the country and divide the volume of such production among the different units of industry on an equitable basis, rather than to continue the present harsh and unremunerative competitive system. But this they cannot attempt today because of the ever-present risk of incurring penalties under antitrust laws which, suitable as they may have been for economic conditions of an earlier day, are not in consonance with the present-day needs of industry.

It is not suggested that the present antitrust laws be repealed, but it is suggested that they be amended to provide that (a) business concerns

tion is made whether or not such combination is prohibited by our anti-trust laws.

I do not suggest the details of legislation, but I do feel that such agreements should be made only with the fullest publicity and under a common cost accounting system for the companies involved. Neither do I suggest that all companies in a common trade or industry be compelled to agree with each other as to the distribution of output. That may come later, but compulsion should be delayed until it has been seen that voluntary action for the common interest cannot be obtained.

The committee of the United States Chamber of Commerce appointed to consider business and employment stabilization came to the conclusion, after most careful study and after conferences with leading business men in many parts of the country, that a national economic council, if properly developed and constituted, would be of great value to this country. With this conclusion I heartily agree. This council should, in my opinion, be an advisory council rather than an executive board.

The present depression gives compelling evidence that our country is confronted with economic problems of the gravest importance and as yet there is no united or settled opinion on many fundamental questions. An advisory council, in dealing with them, could perform a great national service provided that it was so constituted that it would command respect by reason of the ability, integrity, impartiality, and independence of its members and provided further that it be so financed and staffed that its recommendations could be based upon and supported by an adequate analysis of conditions.

A few illustrations will serve to indicate the range and character of the problems with which such a council might deal:

- (1) Assuming a reasonable and proper standard of living for the 120,000,000 people constituting our population, how many of our workers are required to produce, transport, and sell the major necessities of such a standard of living, to wit, shelter, fuel, and clothing? We have many figures available on actual production and cost but few based upon an adequate standard of living for our entire population.
- (2) The tendency of productive capacity to outrun ability to buy. How can our enormous ability to produce wealth be controlled and directed so as to be of the most use to our people instead of being a menace to prosperity?
- (3) The levels of wages. How should they be determined and maintained so as to contribute to prosperity?
- (4) Foreign trade, both export and import. The extent to which it should be encouraged and the methods by which international debits and credits resulting from such trade and service can best be dealt with.
- (5) The agricultural policy of free lands to settlers, of irrigation and drainage projects and of other means by which the area of our cult-

vated land is increased. Are these policies wise or should they be reversed?

These are but suggestions of the fundamental problems which should be considered by such an economic council. In my judgment, its function should be not to consider the problems of the steel trade or the electrical trade or any other particular industry but to study the more fundamental problems which affect all industry and which must be solved if economic prosperity is to continue.

In order to speak with the authority desired, the members of the council must not only be men of the highest ability and character but they must be representative of the country as a whole and not of any particular constituency and they must be so appointed as to be entirely beyond suspicion of control by any group and free from all political interference. The council, in my judgment, should be small, preferably of five members serving either for life or for long terms of ten or fifteen years.

There has been much discussion as to the advisability of creating strong trade organizations for co-operative and beneficial action within any trade or industry. In my opinion, such trade organizations can be of the greatest possible value, provided our antitrust laws are so modified as to enable them to act in an efficient manner. I further believe it would be wise to have the presidents of the major trade organizations of the country act as an advisory board to the national economic council, thus tying together general research with research for the benefit of any particular trade or industry.

There has been much discussion as to whether such an economic council should be financed and appointed by business itself or whether it should be created as a department of the government with its members appointed by the president and its expenses defrayed from the national treasury. The council will only be of value if it be free and untrammelled and capable of rendering judgment irrespective of the influence of any particular trade or of any class of our population or of any political party or group. I, therefore, feel that the economic council should be appointed and supported by business, though it should co-operate with government departments and with trade organizations and encourage the latter to form strong economic councils of their own. It has been suggested that the Chamber of Commerce of the United States name fifty leading representatives of industry, the professions, labor, and agriculture to act as an elective board to choose such a council. It has likewise been suggested that the national economic council be incorporated by a special federal charter, its initial directorate being the president of the United States and a group of leaders in business, the professions, labor, and agriculture, this board choosing the ultimate council, with possibly a veto power on the part of the president over any appointment. Either plan would,

in my judgment, provide the country with an able, independent, and fearless economic board.

If such a council is to be successful, it must also be amply financed, its budget being not less than one million dollars a year. When we know that one corporation is spending over a million dollars a year in physical research, can we doubt that business will fail properly to finance a strong economic council, whose research will be of the greatest value to the entire country?

This country cannot be permanently prosperous until it has a reasonably successful agricultural population. Ten millions of workers and thirty millions of people are dependent upon the farm for their support. A large portion, perhaps the majority, of this farming population is receiving most meager returns for long and arduous labor. It is also most important that the purchasing power of this farming population be restored to normal, for obviously our industries cannot be prosperous while a fourth of our population is almost without the ability to buy.

I realize fully the temerity of anyone who even suggests remedies for the ills of agriculture, but at the risk of being called foolhardy, I am going to make a few observations:

First: The Agricultural Marketing Act under which the Farm Board now operates provides, among other powers, that the Board may attempt to stabilize prices of farm crops by governmental purchases direct or through co-operatives acting for the government. For such purpose a revolving fund of \$500,000,000 was created. This portion of the agricultural act is, in my judgment, thoroughly unsound, as is well demonstrated by the prices of cotton and wheat after the purchase and holding of vast quantities of these products by the Farm Board. As might have been expected the result has been to stimulate production and to create vast surpluses that overhang and threaten the market. Can it be doubted that the prices of cotton and wheat would never have reached the low levels of 1931 if governmental interference in the normal activities of trade in those articles had not taken place? Brazil tried the same experiment with coffee, England with rubber, Japan with silk, and Cuba with sugar, and in all cases the ultimate result has been a precipitous lowering of prices by the creation of huge surpluses of the respective crops. There are other features of the Agricultural Marketing Act that are valuable, but the sooner the right to attempt the stabilization of prices by governmental purchasing of crops is abrogated, the better it will be for the farmer and for the country.

Second: From our earliest history, the policy of the country has been to expand the acreage under cultivation. Government land has been thrown open to settlers substantially without cost, irrigation reservoirs have been built, drainage works constructed, and every endeavor made to

the largest number of people upon the land with the least post-cost. Undoubtedly this policy was wise in the early history of the country, but its present continuance jeopardizes an already serious farm-situation. We are suffering from an overproduction of agricultural products and are economically starving because of a wealth of food. We have too much marginal land in cultivation. We need less and better managed land rather than more land under the plough. I would, therefore, suggest as the second point in an agricultural program a plan of anti-speculation of land areas and a provision that as farms are foreclosed on non-payment of taxes and come into possession of federal, state, or municipal governments, they be converted into state forests.

Third: Repeated efforts have been made to enact legislation for the creation of an "equalization fee" to be levied on certain specified crops, such as wheat or cotton, or as an alternative to provide for "export rebates." Both of these, in the last analysis, provide for export rebates and would undoubtedly be instantly met by added antidumping duties by nations importing such agricultural items. They would, therefore, be non-effective. I do, however, feel that the suggestion for domestic export certificates on some of our leading export crops has much to recommend it in its favor, and that if the government is to interfere in any way with the normal action of supply and demand in agricultural production, it can best be done as suggested by the proponents of domestic export certificates. Certainly this plan would not interfere with normal activities of business more than does the tariff or other similar legislation. If the farmers are to receive a fair return for their efforts, equalization of the supply and demand of crops must be attained and the farmer must be encouraged to diversify his crop and to produce on his own land as much of his own sustenance as possible.

I approach with even more hesitation the subject of credit and banking and yet two facts are perfectly patent; first, that in times of great prosperity, credit for speculative purposes is far too easily and too readily obtained; and, second, that in times of depression the fear that bank deposits may not be safe, leads to cash withdrawals and hoardings and resulting bank failures.

The guaranteeing of national bank deposits has been suggested. It is properly opposed on the grounds that it will encourage unsound banking. Branch banking has also been suggested and I am inclined to believe that within reasonable limits, it would be wise and far better than chain banking that has sprung up in many sections of the country, which is in effect branch banking without branch banking responsibility.

Mr. Traylor of the First National Bank of Chicago has suggested that brokers' loans be not made to customers purchasing less than one

hundred shares of stock but that such small customers look to their banks for loans. It is an interesting suggestion. It has also been suggested that there be much greater publicity concerning short selling. Short selling of stocks and commodities undoubtedly has a proper place in the economic world, but there can be little doubt that grave abuses have crept in, which must be corrected.

The real basis of sound banking is sound management of banks. There has seldom been a serious bank failure that was not long foreseen by the banking fraternity and yet the fraternity was unable to interfere with the management of such banks or with policies which were bound to lead to trouble. I raise the query whether the controller of the currency or the officials of the Federal Reserve Board should have authority to interfere with management when there is evidence that existing management is unsound. Again it is suggested that the basis of the Federal Reserve Act be somewhat broadened and that other securities than those now legal be added to the list which can be used for rediscount purposes. I do not attempt to pass upon this difficult and complicated question except to say that in so far as the list can be broadened with entire safety, it would probably be wise in times of financial emergency.

Finally, it has been suggested that a central mortgage bank be created to furnish mortgage money for home builders and possibly to release some of the frozen real estate assets of banks. It would seem to me far better for the federal government to stimulate business by organizing a central mortgage bank than to raise by taxation huge sums for the construction of roads and public buildings which add to national taxes without hope of possible financial return.

The growth of the automobile industry gave the great impetus to business from the close of the World War to the beginning of the present depression in 1929. I believe that home building and home improvement, with all that it implies, will give the push to business in the next decade and that suggestions for the stimulating of home building or home improvement should be given most careful consideration.

Earlier in this paper I have referred to the gradual shortening of the hours of labor and the steady increase in real wages over a period of years. It is my belief that this trend toward shorter working hours will continue in the future and properly so. Our economic and agricultural organisms, if properly co-ordinated, can undoubtedly provide the basis for a permanently high standard of living for our entire population and at the same time permit a reasonable curtailment in working hours, but I believe that such a curtailment must come gradually, being more marked in some lines of industry and at some periods than at others. This is probably a period when a reasonable shortening of the hours of labor might well be considered in many lines of industry in order that such work as is

available may be divided as equitably as possible among our working population. I would sound a warning, however, that any extremely radical or abrupt change in the hours of labor may bring about great economic harm, and that a shortening of the hours of labor at this time without a corresponding readjustment in wages will place a greater burden upon industry than it can stand. A shortening of the hours of labor in times of prosperity has often been brought about without curtailment of wages; but when occurring in times of depression it has usually been accompanied by some wage reductions. In the long run, however, despite the shortening of the hours of labor there has come a gradual increase in real wages, and a substantial betterment in the standard of living.

Studies of economic cycles demonstrate that all important wars of modern history have engendered periods of great economic activity followed by years of disastrous business depression. Another great war would undoubtedly be even more terrible and destructive than that which ended thirteen years ago, and modern civilization itself would be jeopardized by another calamity of such magnitude. I, therefore, urge that every possible step be taken towards a progressive world disarmament and that all forces leading to international amity and good will be carefully cultivated. At the disarmament conference soon to be held in Europe, I confidently hope that the United States will take a leading part in helping to achieve the purpose for which it is called.

Sickness, Accident, Old Age, and Unemployment Insurance. Throughout the world we find ever-increasing signs of economic and political unrest. With the largest crop of wheat and other grains this country has ever enjoyed, we find famine stalking in the land. Wheat is being fed to cattle in Kansas and bread lines are forming in nearby cities. With a production machine capable of producing a high standard of living for every man, woman, and child in this country, we find many millions of men out of employment and, in many cases, in actual want. This clearly signifies that while we have developed a marvelously productive civilization, we have failed in our adjustment of this civilization to the daily needs of its people. It is this maladjustment, this combination of surplus and poverty, of capacity and want, that is causing thousands of men in this and every other civilized nation to turn to socialism and to rely more and more upon the state to correct the ills of humanity. We have developed a marvelous economic machine but we have not adjusted it to modern life; hence one of the great problems which our present form of society must solve, if it is to endure, is to see to it that every man and woman who desires work is furnished work at fair wages with assurance of continuity of employment and with the further knowledge that when old age, sickness, or accident comes he or she will not be thrown on the none too tender mercies of charity.

We have learned in business to set aside definite reserves to tide corporations over periods of depression; we must also learn to set aside reserves to carry the worker through times of adversity. First we must put business on a sound economic basis with balanced production and consumption and with the ability to earn a fair return on the investment, and then we must place upon business the responsibility of setting aside such reserves as are necessary to care for unemployment, old age, sickness, and accidents. Many of our great corporations are thinking along this line but such action must be general and this result can probably best be brought about through effective trade organizations.

It is indeed ridiculous to speak of unemployment as a necessary condition of human society, or want in case of sickness, accident, or old age as unpreventable. We have learned through research to conquer many of the physical problems of the universe. Now through the medium of economic research, we must learn to prevent want and suffering.

Summary. In conclusion, may I briefly summarize this paper. Business cycles are the unavoidable results of human nature. Depressions in moderation undoubtedly serve a useful purpose. They lead to economy, to thrift, and to the prevention of waste; but carried to the extreme, they become disasters of the first magnitude. Every effort should, therefore, be made to prevent the intensity of great depressions such as occurred in 1873, 1893, and in 1929. Factors which will aid are the revision of our antitrust laws now obsolete and outworn, the creation of a national economic council, the balancing of production and consumption in agriculture, the correction of banking evils which have been shown to exist, the gradual shortening of the hours of labor with the advent of increased productive capacity, the betterment of international relations, and the prevention of war. Having put business on a reasonably profitable basis, we must place upon business the responsibility for setting up reserves to tide over periods of unemployment and to assure men against economic want and suffering because of sickness, accident, or old age.

In the preparation of this paper, I have had the very great advantage of the carefully prepared report of the committee of the Chamber of Commerce of the United States on continuity of business and employment. It was my privilege to be chairman of that committee and thus to be associated with many of the ablest and clearest business thinkers in the United States, and I have thought it proper to borrow broadly from that report. At the same time there is much in this paper which the committee of the Chamber did not pass upon, and I would not attribute to the committee any statement that is not contained in its report.

THE PRINCIPLE OF PLANNING AND THE INSTITUTION OF LAISSEZ FAIRE

By R. G. TUGWELL
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There can be no secure peace in the world so long as its peoples are divided among absolute sovereignties. The divergencies of purpose among them will always cause irritations which sometimes must fail to stop short of the ultimate compromise of war. Sovereign nationalities function in a wider field than industries do; there is, for all that, a useful analogy between them. For industry is also organized in independent units which possess many of the attributes of nations. They have a purpose which they pursue with zeal and foresight; they may pursue it in all essentials, and provided they can reach agreement quietly among themselves, with no governance save of their own making. These purposes, being exclusive and single minded, and being carried out at the expense of competitors, frequently involve recourse to ultimate measures. These begin in the subtle fashions of diplomacy but often end in appeals to force.¹ All this is of the essence of laissez faire.

War in industry is just as ruinous as war among nations; and equally strenuous measures are taken to prevent it. The difficulty in the one case is precisely the difficulty in the other; so long as nations and industries are organized for conflict, wars will follow, and no elaboration of machinery for compromise will be altogether successful. There are vast, well-meaning endeavors being made in both fields which must necessarily be wasted. The disasters of recent years have caused us to ask again how the ancient paradox of business—conflict to produce order—can be resolved; the interest of the liberals among us in the institutions of the new Russia of the Soviets, spreading gradually among puzzled business men, has created wide popular interest in “planning” as a possible refuge from persistent insecurity; by many people it is now regarded as a kind of economic Geneva where all sorts of compromises may be had and where peace and prosperity may be insured.²

¹ We have a word in the United States which we apply somewhat indiscriminately to certain money-getting activities. We call them “rackets.” The term implies quick, easy, or questionable profits, something unethical by ordinary standards, perhaps not always outside the law, but not very far within it. The racketeer has come to mean one who makes money questionably and unfairly by appeals to violence to enforce his will. It is, however, not infrequently difficult to discriminate between what is a “racket” and what is simply “business.” There is a wide, shadowed area in which what is legal and what is governed by violence are not at all clear. And, in fact, the processes of the law are sometimes forms of pressure difficult to dissociate from violence, particularly when official corruption is involved. There is some business which is clearly not of the racket sort and some which clearly is. But all too often the origin and aims of more respectable businesses are illuminated by appeals to pressures, to the corruption of officials, even to violence.

² Cf. J. H. Rogers' comment on the price system and the Russian alternative in *America Weighs Her Gold*, 174 ff.

It is my belief that practically all of this represents an unconsidered adherence to a slogan, or perhaps a withdrawal from the hard lessons of depression years, and that it remains unrelated to a vast background of revision and reorganization among our institutions which would condition its functioning. Most of those who say so easily that this is our way out do not, I am convinced, understand that fundamental changes of attitude, new disciplines, revised legal structures, unaccustomed limitations on activity, are all necessary if we are to plan. This amounts, in fact, to the abandonment, finally, of *laissez faire*. It amounts, practically, to the abolition of "business."

→ This is what planning calls for. In spite of its drastic requirements it may be wanted by many people; most of us are not, however, entitled to the contemporary familiarity with which we toss about loaded phrases whose content is altogether unexplored. It is one thing to advocate a social change which is understood and wanted; it is quite another to consent to a movement whose implications are unexplored. These implications may change early consent to later and bitter opposition. This seems nearly certain to happen; the respectful assent which is commanded by the general proposals of the present is not to be counted on when action is required on more particular policies. For these will show quite clearly what sacrifices are required. Those who talk most about this sort of change are not contemplating sacrifice; they are expecting gains. But it would certainly be one of the characteristics of any planned economy that the few who fare so well as things are now, would be required to give up nearly all the exclusive perquisites they have come to consider theirs of right, and that these should be in some sense socialized. In a romantic, risky, adventurous economy the business of managing industry can be treated as a game; the spoils can be thought of as belonging to the victor as spoils have always belonged to victors. But a mature and rational economy which considered its purposes and sought reasonable ways to attain them would certainly not present many of the characteristics of the present—its violent contrasts of well-being, its irrational allotments of individual liberty, its unconsidered exploitation of human and natural resources. It is better that these things be recognized early rather than late.⁹

National planning can be thought of—in a technical rather than a political sense—merely as normal extension and development of the kind of planning which is a familiar feature of contemporary business. It is not as a technical problem that the idea gives us pause; it is that the implications for other institutions, which we may suddenly see too late, are likely to cause us finally to hesitate and to turn aside from the severe

⁹ Mr. Ford Hinrichs has called attention to the mutually exclusive nature of some of the objectives simultaneously entertained by many of our business leaders who praise the idea of planning. *The Atlantic Monthly*, July, 1931.

logic of events. We have many illustrations of the extension of central office control over numerous units of the same industry, and even over various units of different industries which contribute to one product, such as motors, tires, telephones, or radios.⁴ Even here technology has outrun institutional change. As Mr. Person puts it: "In the face of an integrating technology the government has attempted to preserve primitive forms of competition." And, although so inevitable a movement could not be stopped, it could be hampered and distorted. We might have had some such form of organization as the German cartel system if we had not set out so determinedly, forty years and more ago, to enforce competition.⁵ Instead, we have curious contrasts in procedure and strange monstrosities of form which can be understood only by reference to uneven and intermittent official displeasures. Our industrial structures are reminiscent of weeds grown in the dark, and even those new coordinative features, which have grown in the somewhat brighter twilight of mere suspicion, present strange and unnatural features to be understood only by admission that the functions they profess to be organized for are less important than those which are hidden and unprofessed.

Still, there are a few industries which are wholly integrated or nearly so; and there are many others where integration has gone much further than anyone is prepared to admit. The difficulty with such illegal or extralegal development is that it teaches conspiratorial management; its leaders come to view the government and the public as fair objects of exploitation since their own natural functions are so unjustly repressed. This is important for our purpose because it has led business to represent itself as in some ways much more innocent and immature than it is; and at the same time has prevented the growth, in full light, of technical means of control. Trade associations—to illustrate—are permitted a certain liberty in "business activities"; but "observe that while those things which they may do tend to promote uniformity in details of productive technology and commercial practices, it is those things which they are not permitted to do which are essential to stabilization of an industry"⁶—es-

⁴Cf. Mr. Willard Thorp's familiar census monograph, *The Integration of Industrial Operations* (1924); also his contribution to *Recent Economic Changes*, "The Changing Structure of Industry" (1929). There are numerous relevant passages in the monograph prepared for the World Social Economic Congress by Mr. H. S. Person and published as Document 1 of Section 11 (1931).

⁵It is possible that not the cartel but the integrated, single-ownership enterprise might more readily develop in America. Mr. Domeratzky has shown the difficulties which attend the cartel organization; he appears to feel, after much consideration, that the cartel is rather a temporary device between small enterprise and industrial monopoly, not particularly well suited to other purposes than the limitation of production and the allocation of markets. Mr. Domeratzky develops these ideas in "Cartels and the Business Crisis," in *Foreign Affairs* for October, 1931, pp. 84 ff., as well as in earlier writings.

⁶H. S. Person, "Scientific Management as a Philosophy and the Technique of Progressive Industrial Stabilization," World Social and Economic Congress, 1931, Document 1, Section 11, p. 42.

If profits are really the actuating motive in modern enterprise, why is it that so great a proportion of them go to those who have no share in the control of operations; and why is it that industry continues to run even when those who run it have no major stake in its gains? But, most important of all, if profits are so important to our system, why do we allow them to be used in such ways as not only to destroy the source of future earnings, but to create unemployment and hardship amongst millions of people whose only contact with them in any form has been through reading about them in the newspapers?

It is clear that this institution does not, in any real sense, actuate our productive equipment. Furthermore its malign influence is reasonably obvious. Why is it, then, that we protect and argue for it with a violence and persistence out of all proportion to the gains we may expect? Because, it seems to me, we are not genuinely interested in security, order, or rationality. Profits, in the sense in which we use the term, belong to a speculative age, one in which huge gambles are taken, and in which the rewards for success may be outstanding.¹² When we speak of them as motives, we do not mean that the hope of making 4 per cent induces us to undertake an operation; we mean that we hope for some fabulous story-book success. These vast gambling operations are closer to the spirit of American business even yet, with all the hard lessons we have had, than are the contrasting ideas which have to do with constructive restraint and social control. In fact our business men have only a rudimentary conception of industry as a social function, as carrying a heavy responsibility of provision. Industry is thought of rather as a field for adventure, in which the creation of goods is a minor matter. Who among our millions of Wall Street amateurs hopes merely for dividends on his investment? Or who thinks of the securities he buys and sells as having anything to do with an economic function?

The truth is that profits persuade us to speculate; they induce us to allocate funds where we believe the future price situation will be favorable; they therefore have a considerable effect on the distribution of capital among various enterprises—an effect which seems clearly enough inefficient so that other methods might easily be better; but they have little effect in actually inducing or in supporting productive enterprises. All this appears merely from examination of the evidence available to us as economists; if we look into the evidence from the field of psychology, one of the first things we discover is that this main supporting generalization—that the only effective motive for enterprise is money-getting—appears in the psychologists' works as a standard humorous reference to the psychological ideas of laymen.¹³

¹² Cf. the discussion of this matter in Mr. John Dewey's *Human Nature and Conduct* (p. 217 ff.).

¹³ In Charles Horton Cooley's *Sociological Theory and Social Research* there is an old essay of his on "Personal Competition" which contains some trenchant remarks

It would be untrue to maintain that profits do not supply one kind of motive for economic activity. Business, as we know it, is perhaps chiefly interested in them. This is to emphasize, however, the speculative rather than the disciplined aspects of production. To say that this is one of the institutions which will have to be abandoned if planning is to become socially effective, is to make a sharp distinction among the effects to be expected from dependence upon alternative motives. There is no doubt at the hope of great gains induces enterprise of a sort; and if these are reestablished, a certain kind of enterprise will disappear. The question is whether we cannot well afford to dispense with it. It seems credible that we can. Industries now mature can be seen to operate without it; and new ones might be created and might grow from sheer workman-like proclivities and without the hope of speculative gains.

As we look back at our present system from some time in the future it will be much clearer to us what kind of activities actually were induced by this incentive. At present it is possible to suspect that the decay of the gain-getting motive as an inducement to productive enterprise may have been accompanied by its transfer to essentially antisocial activities. Corporation officers pay too little attention to their duties and too much to the ticker-tape; inside rings exploit the businesses under their control; market cornering and supply limitation become favorite methods of gain-getting. All these and a thousand other activities have far less to do with the productivity of our system than is implied in our easy explanation that gains are the reward for initiative and enterprise and are necessary to call them out. A large share of the initiative and enterprise thus called out might better, perhaps, have been left uncalled, since it obstructs rather than facilitates; we count it good, however, since we reason backward also. Profits are necessary to call out enterprise, we say, but we then say, enterprise called out by profits is necessary—which is not true at all. Nor are they always used advantageously.

Most of us ought not to have been quite so free in our predictions that the institutions of Soviet Russia would break down from a failure of motive. Yet some of us have gone on saying that even in the face of evidence. Not more than a month ago a past president of this association assured me again, as he had done before, that here was the source

about motive. In it he shows how our standards of success have been warped and the need there is for social approval of different activities than command it now. A final paragraph sums up the matter: "It will be apparent, I think, that the view regarding the nature of success here maintained is decidedly a hopeful one so far as concerns the possibility of progress, and wholly opposed to the pessimistic attitude based on the supposed 'selfishness' of human nature and the inevitable predominance of the economic motive. The motive that really predominates, now as in the past, is essentially social and moral; it is the desire to be something in the minds of others, to gain respect, honor, social power of some sort. This being the case human endeavor is above all things plastic, controlled by the spirit of the age. The standard of success, and with the whole character and tendency of competition, is a social or moral phenomenon accessible to human endeavor."

of weakness which must finally ruin all the Russian plans. There are numerous difficulties there, plenty of chances for failure; but the failure of non-commercial motives cannot honestly be said, at this late date, to be one of them. Nor is this a source of necessary alarm—any more than the technical difficulties need be—concerning any planned economy we may devise. It ought rather to be a source of wonder that a society could operate at all when profits are allowed to be earned and disposed of as we do it. The hope of making them induces dangerous adventures, more speculative than productive; and the uses to which they are put are a constant menace to general security. These conclusions only become clearer as time goes on, yet no movement to limit them or to control their uses has made headway among us.¹⁴ If there had been a more widespread suspicion of this sort over some period of time there would be more reason to expect success for proposals looking toward a profitless régime. The universal confidence in profits, still unshaken in the Western World, is quite likely to hinder measurably the advance of planning.

✓✓ A central group of experts charged with the duty of planning the country's economic life, but existing as a suggestive or consultative body only, without power, has been advocated by numerous persons and organizations.¹⁵ It is quite impossible to visualize a genuine Gosplan with-

¹⁴ This broad statement would need to be modified in the case of some quasi-public businesses. The Transportation Act dealt with the problem of railroad profits. In certain other ways we sometimes limit the uses of surplus reserves. The part played by these in the call money market during 1928 and 1929 is now well known. In October of 1929 "loans for others" reached a peak of nearly four billion dollars. These loans, of course, were induced by high call-money rates and were unaffected in any direct or effective sense by Federal Reserve discount policies. It was thus the profits of the previous prosperity period which were used to support security inflation. When this crashed so disastrously, profits were made insecure for some time to come. Evidently this is a bad way to use profits even from the point of view of profit-makers. This was recognized by the New York Clearing House Association in 1931. An amendment to the constitution now prohibits member banks from placing brokers' loans for account of non-banking interests. Other associations may follow. Perhaps the New York Association was led to take this action by the withdrawal rather than the injection of these funds into the speculative markets. For these "loans for others" were reduced from nearly four billion dollars in 1929 to one hundred sixty-two million dollars in 1931, thus contributing to disastrous deflation instead of helping to ease down immoderate inflation. Whatever the motive, however, the action of the Clearing House Association is a recognition that the use of undistributed profit-funds must be controlled. Any system of planning would have not only to hedge them about with restrictions, but to direct their uses—if, by that time, it had not been made impossible for them to be accumulated.

✓ ¹⁵ For instance by Mr. Gerard Swope of the General Electric Company; also by the Committee on Continuity of Business and Employment of the Chamber of Commerce of the United States. Mr. Sumner H. Slichter discusses the problem in his *Modern Economic Society* (pp. 872-886) but is under no illusions whatever as to the likely results. He does not think it worth while even to consider the possibility of institutional changes which would implement the findings of such a body; and it is perhaps true that even a moderate maintenance of prosperity would prevent such a development. There may come another time, of course, such as occurred in 1914-18 when all institutions are melted in disaster so that they may be refashioned after quite unfamiliar designs. The theoretical temper of our time would certainly favor central planning at the heart of any newly devised scheme of control. The Swope plan evidently originates in the concern of a sensitive executive for the employees of his company. It is inter-

out power; but, of course, this is not to be a Gosplan. It might lay out suggested courses; it might even timidly advise; but certainly its advice would seldom, if ever, be taken. It would be as unnatural for American businesses, which live by adventures in competition, to abdicate their privileges voluntarily, as it is to expect rival militarists to maintain peace, and for the same reasons. If an institution of this sort could not be used as a mask for competitive purposes or as a weapon to be used against more scrupulous rivals, as the Federal Trade Commission has sometimes been, it would quickly gather about itself a formidable body of enemies armed with tried theoretical objection as well as real power. The chief concern of militarists must always be to maintain the conditions of war; and the chief concern of essentially speculative businesses must always be to maintain the conditions of conflict necessary to their existence. The deadliest and most subtle enemy of speculative profit-making which could be devised would be an implemented scheme for planning production. For such a scheme would quiet conflict and inject into economic affairs an order and regularity which no large speculation could survive. Every depression period wearies us with insecurity; the majority of us seem all to be whipped at once; and what we long for temporarily is safety rather than adventure. Planning seems at first to offer this safety and so gains a good deal of unconsidered support. But when it is discovered that planning for production means planning for consumption too; that something more is involved than simple limitation to amounts which can be sold at any price producers temporarily happen to find best for themselves; that profits must be limited and their uses controlled; that what really is implied is something not unlike an integrated group of enterprises run for its consumers rather than for its owners—when all this gradually appears, there is likely to be a great changing of sides.

Strange as it may seem—directly antithetical to the interests of busi-

esting that this typical business document should have arisen out of a particular problem and have proceeded to the consideration of general relationships only reluctantly and partially. Mr. Swope understood that if his employees were to have even a measure of his own security and confidence in the future there must be a stability, which its most enthusiastic defender would not claim for it now, in the whole structure of industry. No one business, Mr. Swope saw, could achieve it alone. There must be common action throughout entire industries. Beyond this, he made only the suggestion of "supervision" by a public body.

The Chamber of Commerce committee *Report on Continuity of Business and Employment* recommended certain long-time measures as likely to assure relief from recurrent depression. The central problem was formulated as "the establishing of a better balance between production and consumption." It is seen that this must mean the restraint of certain liberties: "A freedom of action which might have been justified in the relatively simple life of the last century cannot be tolerated today, because the unwise action of one individual may adversely affect the lives of thousands. We have left the period of extreme individualism and are living in a period in which national economy must be recognized as the controlling factor." This might be thought to be the prelude to suggestions for rigorous control. But what follows is only a suggestion for a "National Economic Council" with advisory duties. Furthermore this is not to be a governmental body but one responsible to the Chamber of Commerce.

ness and unlikely to be allowed freedom of speech, to say nothing of action—it seems altogether likely that we shall set up, and soon, such a consultative body.¹⁶ When the Chamber of Commerce of the United States is brought to consent, realization cannot be far off.¹⁷ It seems to me quite possible to argue that, in spite of its innocuous nature, the day on which it comes into existence will be a dangerous one for business, just as the founding day of the League of Nations was a dangerous one for nationalism. There may be a long and lingering death, but it must be regarded as inevitable. Any new economic council will be hampered on every side; it will be pressed for favors and undermined by political jobbery. It will not dare call its soul its own, nor speak its mind in any emergency. But it will be a clear recognition, one that can never be undone, that order and reason are superior to adventurous competition. It will demonstrate these day by day and year by year in the personnel of a civil service devoted to disinterested thinking rather than romantic hopes of individual gain. Let it be as poor a thing as it may, still it will be a constant reminder that once business was sick to death and that it will be again; that once the expert is applied for, his advice must be taken or refuted. Even if it does so little, and that so badly, as hardly to exist at all, it will still have had a different purpose: the achieving of order. And not improbably it will have been demonstrably wiser than the powers which will be creating the events surrounding it.¹⁸

¹⁶ Mr. L. L. Lorwin distinguishes four possible types of these bodies which he calls: (1) The absolute socialist type, (2) the partial state socialist type, (3) the voluntary business type, and (4) the social-progressive type. I have not thought it necessary to follow this distinction very closely, though it is helpful as a guide to the present large output of plans, because it seems to me quite clear, for reasons I develop, that they all come to the same thing—or will not work. There is really very little choice in the long run; our industrial technique is very fully developed and it is of a certain sort and not otherwise. Any plan must contain and complete it or it will fail. We might once have had the choices suggested by such a classification. We no longer have them.

¹⁷ Committee on Continuity of Business and Employment, Report No. 12 (Oct. 2-3, 1981). Most industrial leaders, with a few notable exceptions, favored the La Follette bill in its Senate hearings. This would, of course, set up a fairly harmless advisory body. But, in contrast to the Chamber of Commerce recommendations, it would be an organ of government.

¹⁸ Hearings on the La Follette bill to establish such a national council have shown something, in spite of the reticence of business leaders, concerning attitudes. They are willing, just now, to try anything, but are not hopeful of results. Mr. Sloan, for instance, asked whether he would endorse the idea of a council, answered that, in his opinion, "we wouldn't get very far. There is too much individuality in business. I don't think we have reached the point where individual manufacturers will give up something for others." And he went on to say that the economic council idea, would in its final form result from evolution and experience. Mr. Wiggin, on the same day (Oct. 30, 1981, as reported in *The New York Times* for Oct. 31, 1981) answered Senator La Follette's question, "You think, then, that the capacity of human suffering is rather unlimited?" by saying, "I think so"! He was asked whether he thought a council could have had any effect in checking the excessive expansion of 1929 and replied, "I don't think so." "Then," said Senator La Follette, "I take it you believe that there is nothing which can be done which will be effective in saving us from these great fluctuations in business activity which we have been experiencing?" Mr. Wiggin answered: "I do not think so. A man only lives so many years, and his experience only lasts with him so many years. New generations succeed and they will make the same blunders. . . .

These will, however, be the only ways in which the qualities of a planning body will be able to show themselves. It will be unable to act and therefore unable to eliminate uncertainties; uncertainties make prediction impossible; and planning is a process of predicting and making it come true, not merely a matter of advising voluntary groups. Mr. Slichter is quite justified in pointing out that no scheme we are likely to adopt would be able to do its work effectively. He asks for instance: "Could it prevent depressions? Could it prevent the great overdevelopment of industries? If a council had been in existence as early as 1920, could it have checked the great overdevelopment of the textile industry, the shoe industry, the coal industry, the petroleum industry, the automobile industry, and others? Could it have solved the farm problem? Could it have prevented the depression of 1930 or substantially reduced the severity of the depression? Could it have prevented our foreign trade from being injured by a general upward revision of the tariff in 1930?"¹⁹ And he is certain that the answer to all these questions is "no."

The answer has to be "no" because the necessary conditions of planning are not established by any "purely advisory National Economic Council." An advisory council might guess but it could not plan; and the difference between guessing and planning is the difference between laissez faire and social control. Under the institutions of laissez faire the sole uses of such a body will be to lead us slowly, by precept and demonstration, toward a less uncertain future. It seems improbable that this will be other than a very reluctant and grudging change.²⁰

Human nature is human nature. Lives go on so long as business activity goes on and we are bound to have conditions of crisis once in so often. You may learn from each one how to avoid that particular difficulty the next time, but you are always going to have, once in so many years, difficulties in business, times that are prosperous and times that are not prosperous. There is no commission or any brain in the world that can prevent it."

I believe that Mr. Wiggin was right and extraordinarily honest. No commission, no brain could prevent crisis in business; which is why business is slowly being condemned and new schemes are being considered for taking over its function.

¹⁹ Sumner H. Slichter, *Modern Economic Society*, p. 876.

²⁰ For many years I was puzzled to know why so much opposition to any extension of government functions existed. It was only gradually and with patient inquiry that I satisfied myself. The reason was that business kept any government corrupt that touched it anywhere. This seemed to be a part of the business system, no more considered wrong by business men than ordinary buying and selling. And wise observers who had seen it going on always and everywhere had concluded that it was of the nature of government to be corrupt and inefficient and that no really important matters, such as economic functions, ought ever to be trusted to it. A longer time still was required to reach the conclusion that all these wise men were wrong about causes. And because they were wrong about this their whole thinking was askew. The trouble lay in the nature of business, and so long as business was left unchanged as to motive and method it would continue to corrupt every government it touched. But it could not be reasoned that, because business had paralyzed governmental organs, governments were inherently bad and ought never to be trusted. Revise business; arrange things so that man's capacity to corrupt the public services is seriously limited or removed, and then—only then—we shall have a chance to see whether the public interest, as over against private interests, could command effective and honest service. From what I know of human nature I believe that the world awaits a great outpouring of energy so soon as

✓ inconsistent and anachronistic concomitants of such technology as soon will infuse the industrial process, confusion and disorder will prevail whenever the wilful pursuit of business privileges, as we still know them, chokes the smooth interchanging flow logically belonging to the system of industry, but never yet achieved by human management.

It is necessary to realize quite finally that everything will be changed if the linking of industry can finally be brought to completion in a "plan." It was a reluctant and half blind step which led one executive after another to complete the serialization of his machines. And even then he was sometimes astonished at the results. This new undertaking is vaster; it requires a new and complicated technology which is not yet wholly invented; and it follows not from one executive's decision, but from a thousand preliminary consents, abdications, and acceptances of responsibility. Yet to enter upon it would be to take but a single short step from where we are; the most momentous and final, but still a short one. We have traveled a long road to this threshold we now consider crossing.

✓ The setting up of even an emasculated and ineffective central co-ordinating body in Washington will form a focus about which recognition may gradually gather. It will be an action as significant as the first observations of Taylor; and it can lead eventually to the completion and crowning of that genius' work. The major subject matter of economics during the next few years might well be a particularizing of the implications of this. For we have a century and more of development to undo. The institutions of laissez faire have become so much a part of the fabric of modern life that the untangling and removing of their tissues will be almost like dispensing with civilization itself. We shall all of us be made unhappy in one way or another; for things we love as well as things that are only privileges will have to go. The protective vine makes the ruined wall seem beautiful; we dislike abandoning it for something different. But we shall have to see, no doubt, a wholesale sacrifice of such things, like it as little as we may.

✓ The first series of changes will have to do with statutes, with constitutions, and with government. The intention of eighteenth and nineteenth century law was to install and protect the principle of conflict; this, if we begin to plan, we shall be changing once for all, and it will require the laying of rough, unholy hands on many a sacred precedent, doubtless calling on an enlarged and nationalized police power for enforcement. We shall also have to give up a distinction of great consequence, and very dear to many a legalistic heart, but economically quite absurd, between private and public or quasi-public employments. There is no private business, if by that we mean one of no consequence to anyone but its proprietors; and so none exempt from compulsion to serve a planned public

interest. Furthermore we shall have to progress sufficiently far in elementary realism to recognize that only the federal area, and often not even that, is large enough to be coextensive with modern industry; and that consequently the states are wholly ineffective instruments for control. All three of these wholesale changes are required by even a limited acceptance of the planning idea.

✓^b Planning is by definition the opposite of conflict; its meaning is aligned to co-ordination, to rationality, to publicly defined and expertly approached aims; but not to private money-making ventures; and not to the guidance of a hidden hand.²¹ It is equally true that planning in any social sense cannot leave out of its calculations any industry or group of industries and still remain planning. To do so would be to expose the scheme to the very uncertainty which is sought to be eliminated and to concentrate its advantages in the hands of the nonco-operators. It would be easy for any free industry to erect an empire if all or even many of the others were restricted. It will be required, furthermore, in any successful attempt to plan, that the agency which imposes its disinterested will on industry, must equal, in the area of its jurisdiction, the spread of the industry. Planning will necessarily become a function of the federal government; either that or the planning agency will supersede that government, which is why, of course, such a scheme will eventually be assimilated to the state, rather than possess some of its powers without its responsibilities.²²

The next series of changes will have to do with industry itself. It has already been suggested that business will logically be required to disappear. This is not an overstatement for the sake of emphasis; it is literally meant. The essence of business is its free venture for profits in an unregulated economy. Planning implies guidance of capital uses; this would limit entrance into or expansion of operations. Planning also implies adjustment of production to consumption; and there is no way of accomplishing this except through a control of prices and of profit margins. It would never be sufficient to plan production for an estimated demand if that demand were likely to fail for lack of purchasing power.²³ The insurance

²¹ "The laissez-faire of the nineteenth century was based upon a metaphysics of providential guidance. The planning of the twentieth century rests its case on a philosophical faith in the power of man to promote orderly economic and social change." L. L. Lorwin, *op. cit.*, p. 81.

²² I mean, of course, that only government, in the widest sense, can protect and foster the arts, education, and other similar interests which compete with industry and would do so more formally under any planned division of the national income.

²³ The chief instruments which have been able to develop, under laissez faire, toward order and regularity, have been those "trade associations" referred to before. They serve as illustrations both of the possibilities and the limits our system offers. For, as Mr. Soule has pointed out, they lead to contraction and limitation but offer nothing in the way of enlarged ways of living. If we were to pursue the logic of this development we should have industries organized; we should have control established over production and price. So far the results would doubtless be good. But we should also have production limited to the amounts which would regularly be absorbed by con-

of adequate buying capacity would be a first and most essential task of any plan which was expected to work. To take away from business its freedom of venture and of expansion, and to limit the profits it may acquire, is to destroy it as business and to make of it something else. That something else has no name; we can only wonder what it may be like and whether all the fearsome predictions concerning it will come true. The traditional incentives, hope of money-making, and fear of money-loss, will be weakened; and a kind of civil-service loyalty and fervor will need to grow gradually into acceptance. New industries will not just happen as the automobile industry did; they will have to be foreseen, to be argued for, to seem probably desirable features of the whole economy before they can be entered upon.

This sweeping statement of the logic of planning is simply an attempt to foresee what our economic institutions will be like if we adopt the planning principle. We shall not, we never do, proceed to the changes here suggested all at once. Little by little, however, we may be driven the whole length of this road; once the first step is taken, which we seem about to take, that road will begin to suggest itself as the way to a civilized industry. For it will become more and more clear, as thinking and discussion centers on industrial and economic rather than business problems, that not very much is to be gained until the last step has been taken. What seems to be indicated now is years of gradual modification, accompanied by agonies and recriminations, without much visible gain; then, suddenly, as it was with the serialization of machines, the last link will almost imperceptibly find its place and suddenly we shall discover that we have a new world, as, some years ago, we suddenly discovered that we had unconsciously created a new industry.

These struggles and changes may seem to the future historian who

sumers at prices dictated neither by a constant ratio to costs nor social need for the goods, but only by the industry's conception of its own best interests. This will never be good enough in any social sense to command permanent assent. Besides, the profit fund will always, after a period of expansion, find itself embodied in overbuilt enterprises whose goods cannot be sold. In spite of these obvious difficulties this is doubtless the direction of our development. Mr. F. M. Felker of the Bureau of Foreign and Domestic Commerce, speaking on November 30 before an organization of brokers, referred to the well-known fact that his Bureau was already co-operating with 143 associations to assist them in planning. He even implied that his Department might soon suggest a plan for industry as a whole. To one whose mind is free of laissez faire dogma the peroration of this address must seem to furnish a curious *non sequitur* to its general implications. For, after referring to the many approaches to planning in individual industries, and saying something indefinite about a general plan, he finished in this way: "This program must conform to the fundamental American principle of individual initiative and individual achievement for individual reward. It cannot be imposed by fiat or decree. It must in the end rest upon the intelligence and ingenuity of the American business man. Economic planning by ukase is not for us." Having achieved the feat of getting the word "individual" into one sentence in three places, and having eliminated experts in favor of business men, he thus was able to point to a highly expert and carefully socialized effort of the government as after all quite harmless and ineffective.

looks backward, like the purposive journey of a seedling toward the light. The seedling could not see or feel that light; it merely obeyed its nature. If only society had a greater and more widely diffused power to comprehend and pursue the purposes of its nature we should save ourselves the great waste of energy which goes into opposing and regretting change. The difficulty with this is that society is not an organism; that it has no discoverable nature to obey; that there are no natural requirements for its development. We are not going anywhere; we are merely on the way. For this lack of the purpose, which nature kindly supplies to her lower organisms, society must substitute plans born of intellectual effort, and imposed by awkward democratic devices. This is a hard condition for human nature. We have no great gift for shaping our behavior in accordance with large aims, and no great gift either for tolerating the necessary disciplines. It has been by a series of seeming miracles that we have acquired the technique of control and the industrial basis for economic planning. The still further, perhaps greater, miracle of discipline is needed.

It is perhaps no accident that planning has recently become a center of discussion in economic affairs in substitution for laissez faire. Changes in contemporary philosophy have prepared the way. Chance has substituted itself for the anthropomorphic interpretation of history as a causal sequence. Even the evolutionary principle has the defect, in social history, of making the present seem to have been what we were struggling for. Of course we were not trying to attain any of the institutions we have. They resulted from the chance conjunction of changes. Only the backward look, determined by the view from some contemporary hillock, gives history a meaning. We have, nevertheless, as we are just now dimly beginning to see, the possibility, in a world of discontinuous development and chance combination, of producing a new history guided quite consciously toward foreseen ends.

There is something hostile to mankind in the cold notion of a world which progresses toward unseen ends, regardless of human desires. So long as it was possible we tried to delude ourselves, in one way or another, that purpose existed and that it had a definite reference to mankind. All that comfort is torn away now; and we remain poor, inconsequent creatures exposed to chance developments which are neither kind nor unkind with reference to ourselves, but simply impersonal. It is perhaps characteristic of human nature that we should reject such a view until it became intellectually impossible to cherish our delusions further; and that we should then turn to the only alternative. If there is no order and sequence in events, if the world is indifferent to man, we still remain men. It is perhaps the most magnificent of all human gestures to accept inconsequence and to set out determinedly to bring order out of chaos. I do not regard it as settled that the world is ready, yet, for creating its future according

to a determined purpose.²⁴ But we are at the point where discussion of this possible mastering of future history is beginning to assume practical aspects; and there is undoubtedly some need for haste if change is to come peaceably. It is my view that the prospective discussion ought to be carried out with a clear view of its philosophical implications and of its institutional requirements. If we accept the principle of planning we must accept its implied destruction of the structure of a *laissez faire* industry.

It is, in other words, a logical impossibility to have a planned economy and to have businesses operating its industries, just as it is also impossible to have one within our present constitutional and statutory structure.

- Modifications in both, so serious as to mean destruction and rebeginning, are required. It is strange, in a way, that we should have come so long a journey to the very threshold of this new economic order with so little change as is yet visible either in our institutions or our intentions. The reason must be that in this, as in so many instances, only the last steps become conscious. We are incorrigibly averse to any estimate of the logic of our acts; and we are also, somewhat paradoxically, fonder of our systems of theory than might be expected, reluctant to expose them to the tests of reality. Consequently we begin with small unnoticed changes and end by not being able to resist vast and spectacular ones—at which time our systems of theory tumble unwept into the grave along with the outworn techniques they accompanied. When this kind of thing follows a relatively unimpeded course there is rapid industrial change such as once happened in England; when politicians, theorists, and vested interests resist too strenuously, there is a revolution on the French model. How rapidly the pressures rise to explosive proportions depends both upon the visibility of a better future and upon the hardships of the present.

There is no denying that the contemporary situation in the United States has explosive possibilities. The future is becoming visible in Russia; the present is bitterly in contrast; politicians, theorists, and vested interests seem to conspire ideally for the provocation to violence of a long-patient people. No one can pretend to know how the release of this pressure is likely to come. Perhaps our statesmen will give way or be more or less gently removed from duty; perhaps our constitutions and statutes will be revised; perhaps our vested interests will submit to control without too violent resistance. It is difficult to believe that any of these will happen; it seems just as incredible that we may have a revolution. Yet the new kind of economic machinery we have in prospect cannot function in our present economy. The contemporary situation is one in which all the choices are hard; yet one of them has to be made.

²⁴ Cf. the final chapter in Mr. John Dewey's *Philosophy and Civilization*, especially the passage on page 829 in which he attributes our backwardness in social knowledge to our failure to use our already acquired skills in the interest of a "shared abundant and secure life."

DISCUSSION

LEWIS L. LORWIN.—The two papers which I am to discuss are permeated with a totally different spirit. Mr. Harriman is out to stabilize industry and employment under *laissez faire*. As a business man he talks about stabilization primarily in the light of the present depression.

That seems to me a weakness. What we are witnessing today seems to me to involve three major problems. One is connected with the continuing revolution in technology. Another is inherent in the inequalities of wealth and income which affect the flow of goods and the balancing of production and consumption. The third is the change in the relative economic position of the different countries of the world which is affecting the character of international trade and world economy. Any attempt to stabilize industry that does not take all these factors into account is likely to remain futile.

In view of the limitations of time, I shall single out two other points in Mr. Harriman's paper which seem to me important. One is his admission that the present economic system is on trial, and that one feature of that system is condemned forever; namely, its speculative aspect. It is a sign of progress that the American business world, speaking through Mr. Harriman, is ready to admit that this aspect of business must be curbed and that business must be built with a view to security for all. I cannot say, however, that Mr. Harriman envisages in his paper all the economic implications of this new attitude.

The other point which I wish to call attention to is that which deals with the treatment of the national economic council. Here again, the business world, as represented by Mr. Harriman, is taking a step forward from an individualistic point of view to an attitude which involves some regard for the common interests of national economy.

But here, too, Mr. Harriman refuses to go the full way. His suggestion of giving the power of appointing the council to chambers of commerce and of making it dependent for its financial support upon business is certainly not indicative of a desire to develop a national economic consciousness, but of a persistent tendency to subordinate national life to one group of the population; namely, business.

This fundamental contradiction permeates all the thinking of the business group. While it feels compelled to pass from the concept of individualism to that of national economy, it allows its group interests to dominate its practical proposals in interpreting what is national economy. So that it conceives national economy merely as a business economy directed by business interests and dominated by business motives. It is doubtful whether we can gain much from a national council conceived in such a spirit.

On the whole, I find little in Professor Tugwell's paper to disagree with. I think he is right in presenting the principle of planning as the opposite of *laissez faire* and as involving ultimately a complete economic and social revolution. My comment, however, on his paper is that it does not touch upon the central problem which concerns us most. Granted that planning is a revolutionary principle, the main question is whether it can be applied gradually and peacefully or not.

✓ The statement, presented by Professor Tugwell, is in a sense a tautology. If you start out with a definition of planning which makes of it a complete social revolution, then it is obvious that such a new system cannot operate under the present system. But such an approach is unrealistic. The issue before the world is not that of jumping from a system of *laissez faire* to one of full fledged socialist planning. No such system of economic planning is in existence today. Even in Soviet Russia we have a system of planning which is only in part socialistic and which operates with mechanisms, incentives, and techniques of the most varied and complicated character.

I think the discussion would be more realistic on the basis of the distinctions which I have drawn in a paper on "The Problem of Economic Planning" to which Mr. Tugwell refers in his footnotes. Mr. Tugwell thinks that these distinctions are of little importance and that all planning comes to the same thing. I beg to differ with him on that point. The distinctions of types are not merely abstract classifications but they involve an important principle; namely, that planning can be applied under different schemes of social institutions and in different degrees and different forms, and that the attempt to do so is already in evidence and will become the arena in which the economic and social struggle during the coming decade will take place.

The difference in approach is important not only from a practical but also from a theoretical point of view. For if we assume that the process of economic planning and the machinery for carrying on that process cannot be evolved in any degree under present conditions, there is nothing for us to do except either to accept present day conditions or to advocate a revolution. That is why Mr. Tugwell comes at the end to a dilemma. The present order does not satisfy him. Planning involves a complete revolution in institutions which cannot be achieved at once. He offers us a choice which is no choice at all.

We can avoid this dilemma if we realize the necessity and importance of constructive thinking ahead in the working out of new economic and social principles. The further study of economic planning should consist not only in the elucidation of the principle and of the institutional changes which it involves, but in specific studies of possible partial applications. That would be the most effective method in my opinion of bringing to light the contradictions of *laissez faire* and the nature of the techniques of effective planning.

The two papers presented show that the discussion of planning is in its initial stages. It ranges from an abstract analysis of the general meaning of the term to a discussion of concrete proposals made by one or another group without effort to bring out all the implications of these proposals. One need not be discouraged by this. We are dealing here with the emergence of a new concept which in my opinion is going to be the center of discussion and of economic analysis for some years to come. For economic planning has entered the scene as a practical methodology in one large country. It is becoming clearer that within the system of *laissez faire*, this principle has been gradually building itself up in partial form and that it is now forcing itself upon the attention of the world as a synthetic principle of thinking and action in economic and social matters.

It is because of that that I hope that we shall begin to take the next step in the process of clarifying ideas. There is an immense new field here which must begin to be cultivated. The techniques and methods of planning must be studied wherever they have been applied or attempted, and the possible applications of the principle in limited areas and degrees must be considered. There is opportunity here for all who are eager to aid in bringing reason into our economic and social order.

RALPH E. FLANDERS.—The important points under discussion in these able papers appear to be, first, the possibility and desirability of economic control; and, second, the relative possibilities of a control vested primarily in industry, as suggested by Mr. Swope and Mr. Harriman, as against the more arbitrary planning organization, governmental in form, proposed by Professor Tugwell.

There is in the brief time allotted me no opportunity to balance in detail the possibilities and dangers in the two industrial projects. Both plans accept a high degree of social responsibility; both urge provision for unemployment funds. The Chamber of Commerce report suggests a further shortening of working hours. Mr. Swope's proposals require a definitely organized provision for life and disability insurance, pensions and unemployment insurance; and a novel and useful arrangement permits the benefits to follow the employee when he changes jobs. In return for this social service, he would request mandatory powers in compulsory trade associations for the balancing of production with consumption.

This last item would appear to have two serious objections. It would be based in practice on restriction and allocation of production instead of on an increase of consuming power, and it would inevitably lead to governmental price control.

In my opinion neither plan goes to the root of our difficulties, except as the economic council proposed by Mr. Harriman may do so. After all the lines of action suggested have been worked out and applied, factors which lie outside of the ordinary operations of industry will periodically result in a failure of purchasing power to keep pace with production; and there will be large, rapid changes in the general price level, which will lead to destructive speculation on the one hand, and to destructive readjustment on the other.

The most serious aspect of these proposals lies in the assumption tacitly made that if industry is given certain new privileges in the way of association and control, it can promise to diminish materially the distresses resulting from business fluctuations. This implied promise has been quickly taken up, as is witnessed by a handbill which has been circulated in many of the manufacturing plants of the country, from which the following statements are quoted:

Industry is responsible for unemployment. Industry can give jobs. Politicians cannot do it. Workmen cannot provide jobs, and, except where they are organized, they have no control over jobs. Industry must face its responsibility. . . . We shall hold industry to the issue. There is too much effort to conceal and confuse. We insist that industry is responsible, that

industry can end unemployment and that it shall not escape its responsibility.

This challenge industry cannot meet, and it must not promise to do so, even by implication. It must meet the problem itself, however, face to face; and so met, it will be seen to involve governmental and general financial policies of a serious sort. In solving the problems involved the workers and the leaders of industry will find themselves having wide common interests, instead of being ranged against each other as the handbill suggests.

Professor Tugwell, on the other hand, assumes that competitive industry operating under the profit motive is inherently unstable—that it must be transformed into a completely planned economy to save our mechanized civilization from a disastrous crash. To this it may be answered with some confidence that if an economy of planned detail is the only alternative, the crash is inevitable.

If we could take a position sufficiently far above the surface of the earth and were possessed of sufficient keenness of vision to see from that viewpoint what is going on in the United States as a whole, we would observe rivulets of materials leading from farm, forest, mine, and ocean, gathering into broad streams in their flow towards manufacturing and packing establishments. Thence we would see the finished goods flowing in smaller streams to wholesalers, thence in still smaller streams to retailers, and lastly and finally as subdivided particles reaching ultimate consumers. There would be, if it were visible, a similar but reverse flow of money and credit in its various forms. The larger transactions would involve the transfer of large amounts, the smaller ones of less amounts, while the smallest would require only the change carried in the pocket. The enormous extent of these operations, their unimaginable variety, the incalculable complexity of the courses they take, the innumerable final objectives they reach and serve, are beyond human comprehension or calculation. It is the profit motive which ultimately maintains this labyrinthine mechanism.

When Professor Tugwell argues that the profit motive is ineffective and may be disregarded, he puts the case too strongly. He might properly have said that it is only one of many motives by which men are moved, and that it is often overshadowed by other elements more clearly in the foreground of consciousness. The real function of profit goes deeper than motive. In our economy it is a fundamental requirement for continued existence, and is never long neglected without vital peril. No psychological tests or analyses reveal this fact; it is a solidly established commonplace of business experience. It is the ruling condition which, when effectively met, permits the superposition of many other less impersonal motives. Its useful function is in providing a firm foundation for more spiritual structures.

The degree of success which Russia, without the profit motive, has attained in an arbitrary governance of this intricate problem has been due to three factors. First, her economy is until now a saprophytic one, feeding on the finished mechanisms and processes of more vital and self-sustaining social organisms. Second, her substitute for the profit motive is a discipline that is essentially ascetic; and it remains to be seen whether, in the face of a

world incredibly rich in material possibilities, such a principle can indefinitely maintain its power. Third, such measure of success as has been or is likely to be attained in the near future is at the expense of a simplification of the problem which involves a low scale of living and a standardized existence.¹ Only so can the task be brought within the range of human abilities.

Thus, the basic objections to Professor Tugwell's thesis are that his solution is impossibly difficult if we are to preserve the rich material existence which we now enjoy or can enjoy; and that the alternative of a simplified and standardized existence, brought within the limits of human ability, is so false to our desires and possibilities and to the direction of our historic development as to be impossible except as a forced adjustment to some destructive catastrophe.

It seems necessary, then, to discard the solution by industrial self-regulation as inadequate, and that by arbitrary and detailed economic control as impossible. Is there a third possibility?

Indeed there is!

That possibility lies in a frank recognition of the usefulness of that force of nature which we call the profit motive; and in a purposeful attack on the problem of controlling it in the same way that other natural forces are controlled by the engineer. The problem is akin to that of flood control and irrigation, and of harnessing to human uses in the power plant and transmission line the energy which manifests itself destructively in the lightning.

It is impossible to give details in a brief discussion like this. But the general line of attack may be indicated. Governmental and social control should be so directed as to minimize the element of unsocial speculative² profit, as distinguished from the profit which arises from serving public needs.

There are involved government policies of expenditures, borrowing, and taxation. Also concerned are general financial policies of discount rates, the expansion and contraction of money and credit and of foreign investment. There must be consideration of the kind and amount of industrial and financial information available to the investing public. The problem of stabilizing the value of money must be faced courageously.

The prime essential is a realistic viewpoint which is willing to take account of all the facts; and among those facts none are more significant than the limited effectiveness of industrial policy, and the limited capacity of human intelligence and experience to control in detail the elements of a rich and developing material existence.

J. G. OHSOL.—It seems to me that not stabilization but expansion is what is wanted at present by most industries. Few business concerns would consider their present low levels of activity as a desirable basis for stabilization.

¹As a homely example we may take the case of women's hats. If these have to be planned for, they will become uniform elements of a uniform. Left to the whimsical control of a profit economy they exhibit a variety, an unexpectedness and, in rare occasions, a beauty which adds much to the interest and satisfaction of living. What gain in rigid intellectual simplification of a vital problem will compensate for the loss of such satisfactions?

²There are socially valuable speculative enterprises such as those involved in exploration, development, and research; and we must recognize the desirability of reasonable speculative profits in these kinds of enterprise.

Also, little consolation can be derived from comparing the present depression with earlier ones. It has certain peculiarities of its own which would seem to make all such comparisons futile. It has created the widest unemployment known in history. It brings out the overcapacity of productive plant facilities in most of the old capitalist countries. At the same time, the new overseas countries in South America, Africa, and Asia are vigorously developing their own industries. Hence, there seems to be little possibility in evidence of absorbing or utilizing the overdeveloped plant capacity in the older capitalist countries. There are few, if any, more important unappropriated territories left for fresh expansion of the industries of older countries. Technological displacement of labor is growing apace with new inventions and with the increasing efficiency in production. Training of displaced labor for new trades would be feasible only if there were labor shortages in other fields; but there seems to be none. Hence the curtailment of labor hours seems essential in order to provide work for more people and to insure their purchasing power. The war treaties, reparations, etc., with the resultant abnormal distribution of gold and subsequent tariff wars, have not only dislocated the world's markets, but have destroyed the purchasing power of several European and South American countries.

I find it impossible to agree with the proposition that moderate depressions are conducive to economy, thrift, and the prevention of waste. The destruction of the earning power of millions of people is a poor economy; the operating of manufacturing plants at a small part of their capacity is obviously a great waste of equipment and investment. It is likewise difficult to subscribe to the thesis that business cycles are unavoidable results of human nature. Are we to assume that these cycles are bound up with some biological or physiological characteristics of mankind? If so, then no national economic council, as suggested by Mr. Harriman, will be able to dislodge them.

Yet, if any planning of industry by a national council is to be effective, it would seem to be evident that such a council must have power of decision and action and not merely give advice. It is precisely the lack of power to enforce decisions which made all previous attempts at regulating the output of rubber, coffee, sugar, silk, etc., fail. If the council is to determine the number of workmen to be assigned to each major industry, if it is to balance consumption and production, if it is to regulate international exchange of commodities, it must have power to make and to enforce its rulings. Otherwise, its advice would probably be of no avail and the various business organizations would continue their activities much as they had done heretofore.

If further proof of the inadequacy of mere advice were required, we need only look at the figures for new construction. In spite of repeated and almost unanimous advice by various authoritative bodies that construction activity should be increased during the depression, the construction statistics show a very marked decline in all building operations.

Lack of time does not permit a discussion of the planning methods adopted by the Soviet Union. I should like, however, to point out that not all planning in the U.S.S.R. is done from above—by the State Planning Commission or the Supreme Council of National Economy. A great deal of initiative is left

to smaller bodies, even to the individual plant with its production conferences made up of representatives of the workers and of the management. These conferences make valuable suggestions and sometimes vote important alterations of the proposed production plan. After careful consideration by the technical personnel of the plant these alterations are usually agreed to and approved by the respective trusts or the Supreme Economic Council. The chairman of the production conference of the plant, who is elected by the workers from among their number, acts as assistant director of the plant.

WILLARD L. THORP.—Both speakers, a leading business man and a leading economist, agree that our economic machinery is in need of overhauling. It ran at extraordinary speed for eight years, and then suddenly refused to operate. The two classic controls, prices and profits, somehow failed to function. And we now insist that we would gladly sacrifice some of the high speed for a more even rate, if it would do away with these long and painful intervals of repair work.

Mr. Harriman has suggested a program with two vital parts, that the anti-trust laws be so modified that industries be permitted to balance production and consumption by voluntary agreements, and that a national economic council be created by business, financed by business, to consider and advise on broad problems of public policy. What promise for future stability is there in this program?

The first suggestion leads directly to the restriction of production in order to maintain prices and earnings. Its contribution to stabilization rests on the assumption that the depression was caused largely by overproduction and that this condition resulted from blind competition. That production exceeded consumption in certain lines prior to the recession is clear. But the very industries in which this situation was most severe are those in which the proposed voluntary agreements would be most difficult. Most manufacturing industries, as far as our sadly inadequate data show, did not record excessive inventories in the autumn of 1929. Nor was overproduction indicated by a sagging of their prices in an attempt to stimulate consumption. Overproduction was a serious factor in agriculture, in construction, and in automobiles. Yet these three industries are peculiarly unable to benefit from the proposed plan. Many attempts for voluntary restriction in agriculture have met with failure. The construction industry, disorganized as it is and producing unique products, cannot adopt a policy of rationing output. And the automobile industry is complicated on the one hand by an extremely variable and unpredictable consumer demand and on the other by a bewildering array of models and price differences.

The prospect of the voluntary organization of any considerable number of important industries is quite as unreal as the idea that all industries are subject to blind cutthroat competition. Mr. Tugwell has already called attention to the degree to which markets are often dominated by large enterprises or by business habits which restrict free competition. Again our knowledge is woefully inadequate, but we are all aware of the development of inflexibility in certain prices which can only have come from informal agreement. In those instances where such control has been publicly avowed, as in the copper in-

dustry, the record does not justify the confidence of industrial leaders in voluntary restriction agreements. Cartels in Germany have not been able to attain stability.

The program calls for the attainment of stability through the restriction of production. If we have learned anything from the recent period, and for me it has largely been a process of unlearning, it is that equilibrium cannot be attained by fixing any one variable. How can a single industry, assuming that all its present members unite in a voluntary agreement, meet the problems of new capacity, of the development of substitute products, of competition for markets, of ability to obtain working capital, of changes in price level, etc. The distinction made by Professor Gay at a meeting of this conference between rigidity and stability is useful here. Stability is a sort of moving equilibrium. The pegging of any one variable may well interfere with rather than encourage stability.

I do not wish to imply that much cannot be done through individual industries in the way of setting their houses in order. Improved accounting, reduced competitive advertising, better statistical records, and the elimination of commercial bribery are all worthwhile in themselves. But little aid to stability can be anticipated in this direction alone.

The second element in Mr. Harriman's program seems to me much more significant. It proposes a national economic council. While in the form proposed its usefulness is decidedly limited, it represents a step in the right direction. Nevertheless, the general proposition which underlies any assumption of advisory activity is that the "truth will prevail." The experience of economists in educating the public, and others, concerning the tariff should be sufficient evidence of the slowness of this process.

The usefulness of such a council lies not so much in any promise of actual accomplishment, but in the turn which it may give to our economic thinking. It will emphasize the need for knowledge, for facts, for understanding of relationships as they bear on the problem of social planning. It will force us to seek to understand more clearly the controls which do exist at the present time, and to give more thought to specific programs of social improvement.

The implication of Mr. Tugwell's remarks is that any hope for successful planning must be international in scope. He clearly suggests the decay of the utility of the national concept in politics. His analogy is quite as effective in the economic sphere. If the League of Nations represents the logical scheme of government, then a world economic council is the logical basis for economic planning. A national organization would be confronted at once with problems of international credits, raw material supplies, dumping, world prices and world price levels, and the like. The only alternative to world co-operation would be a severe isolation policy, withdrawing from all foreign economic relationships.

Economic planning for the United States is still far in the future. There is no hope for any considerable achievement at the present time. Any developments which may be brought by the depression will be of little avail when the next period of prosperity sets in. We must and doubtless will go through further economic difficulties before any basic change is made. When

laissez faire has brought a sufficient number of calamities, then we will begin to think of real economic planning.

WILSON COMPTON.—One of the objections frequently made to the principle of industry-planning is that it will stop progress. Well, if we can stop some of the kind of progress we were making in the last decade, we will be at least that much better off. But to secure orderly processes in industry and commerce and in the production and distribution of commodities, it is not necessary that science and invention be curbed or impaired. It is necessary that their social and economic consequences be controlled. Science is our greatest promise, also our greatest threat—a promise if it continues the servant of man; a threat if it becomes his master.

Stabilization without invention is stagnation. Invention without stabilization is chaos. The problem is not to choose between the two, but to devise the means of combining them in such manner and under such intelligent direction and control as to secure the largest net advantages of each.

Economic planning is not a new idea. It has merely been clothed with a new significance. Recent events nation-wide, even world-wide, have given it a mighty impulse. We have found that science and technology are merely a means to an end, not, as some have boastfully proclaimed, an end in themselves. Technology has given us the physical means of higher living standards; but not the means of avoiding impoverishment in the midst of plenty. Our problem, fortunately, is one not of irreparable famine, but of uncontrolled, although not uncontrollable, surpluses. Our technological appetite has outstripped our economic digestion. It promises so to continue until our mastery of distribution is comparable to our mastery of production.

This condition and its solution readily inspire speculation in social, economic, and political philosophy. Nationalism by some is said to be doomed, capitalism to have disintegrated, and individualism to have become a decadent, threadbare, and old-fashioned fetish. Certainly he who has eyes to see will not have failed to see symptoms of fundamental change, especially during the past decade. But to draw such comprehensive and dogmatic conclusions seems at least a bit premature. After all, society is composed of a number of individuals. The welfare of society is not distinguishable from the welfare of the individuals who compose it. Social motives as distinguished from the motives of the individuals who compose society are merely a convenient fiction.

I do not think we need assume the abandonment of the ideals of individualism. We may hope to derive substantial gains from deliberate forward-planning of production and distribution in our various lines of industry and commerce. We know that our economic structure has become amazingly complex, that single industries or groups of industries can no longer isolate themselves; that any industry, perhaps through no fault of its own, may be made the victim of conditions over which it has no control. Economic and commercial stabilization in any industry therefore may not be secured wholly apart from general industry stabilization. Nor, in fact, with few exceptions, may industry in a single nation maintain immunity from world-wide economic influences.

Economic planning and enforceable adherence carried to its logical ex-

treme would therefore mean complete international controls—in effect, an international, supernational government. Such a fantasy may have a philosophical appeal, but no practical advantage to that large segment of the American people who hope for the establishment of direct, immediate, and, may I say, practical securities against the adverse consequences of the "business cycle."

It is said that economic planning is the process of predicting and of making the prediction come true. This is a matter, partly of definition, partly of opinion, and not much of fact. Forward-planning to be useful does not necessitate the abandonment of individual enterprise, or of the opportunity to follow individual judgment. Social judgment separate from the combined judgments of individuals is after all a mere convenience of definition. There is no thought without a thinker, no judgment without a judge, no action without an actor. In discussing social controls, we may abolish individualism by definition. But we cannot abolish it in fact. It may be subjected to controls and limitations. It may be subordinated. It may be made impotent of effective expression, but it cannot be eliminated. The choice is not between the suppression of individualism on one hand and its uncontrolled freedom of action on the other but is whether it is desirable that individual initiative be suppressed or be given intelligent guidance.

Many trade associations in American industry provide a reasonably effective means of organizing and directing the motives of industrial self-government. These associations are a product of group ideals and group interests. In the aggregate and in daily practice they represent a vast progress in self-government of industry. Their extensions into the field of industry-planning are normal and logical, and should be encouraged. Whether in the long run they will prove to be adequate cannot be, and need not be, determined now.

The industries, for example, with which I am associated—the timber, lumber, and wood using industries—have developed a comprehensive system of current information on supply and demand and on consumption and production prospects. Through the National Lumber Manufacturers Association, these industries secure:

1. A weekly telegraphic report from nearly a thousand mills on the week's production, sales, and shipments of lumber, and the current condition of stocks and unfilled orders.
2. A four-weekly summary of production, sales, and lumber movement.
3. A four-weekly analysis of expected production of lumber in each region during the next two following periods of four weeks each.
4. A monthly analysis of the lumber market including forecasts of the next month's consumption as reported by about 2000 correspondents and observers in every part of the United States. This information, in turn, is made available not only to manufacturers and distributors of lumber, but to the wood-using industries, purchasing agents, carpenters' unions, interested loan and finance institutions, and public agencies.

Even more distinctive is the quarterly survey of lumber production, inventories, and consumption, instituted during this year by the United States Timber Conservation Board. This board was established a year ago by the

president of the United States to consider the "problems and consequences of overproduction in the forest industries" with view, to use his own phrase, to developing "remedies through concerted programs of private and public effort." This is a unique undertaking, frankly in the direction of public and private co-operation for industry stabilization. One of its chief features is a quarterly survey of lumber production, stocks, and consumption. The survey is made by a special lumber survey committee composed of men not themselves engaged in the industry, but familiar with its facts and with the markets and uses for its products. Its reports have been printed and widely distributed.

Based on its findings of prospective consumption, the lumber survey committee has recommended specific production quotas for each important region and species of lumber production. The frank purpose of these recommended quotas has been the gradual and systematic reduction of the surplus inventories which were crushing the lumber and wood-using industries; the establishment and maintenance of a reasonable current balance between production and consumption; and the orderly distribution of forest products. The functions of this survey committee are, of course, only advisory. There is no authority and no purpose of enforcement other than by the persuasive appeal of fact and logic. Yet it has been measurably effective.

That this is so is evidenced in the fact that during a year in which lumber consumption has been the lowest in this century, and the industry's capacity to produce nearly the highest in its history, the inventories have been reduced 15 per cent and the burden of balancing production and consumption has been more evenly shared among competing regions than at any previous time.

The lumber industry has 20,000 producing units, large and small, distributed through thirty-six states. To secure a common understanding of the industry's vulnerable economic condition, to say nothing of a common course of action to improve it, is manifestly difficult. If it can be measurably done in so widely decentralized an industry, the fair presumption is that it may be done elsewhere. The important fact is that it be done as a consequence of the intelligent action of competitors and not by the fiat of public authority. After all, the wisdom of the government is not greater than the wisdom of its people.

Trade associations have been referred to as the most influential present forces in American industry in encouraging and facilitating systematic national planning. The principal executives of about 500 trade associations, including the national association in nearly every important American industry, are represented in the membership of the American Trade Association Executives. For the professional guidance of trade association executives this organization has established a Committee on Statistics and National Planning. Its purpose is to explore the further possibilities of industry stabilization through the deliberate forward-planning of production and distribution, with the aid of the frank co-operation of private and public agencies.

The trade associations through organized voluntary co-operation, industry by industry, afford at present the only important facilities for such purposes. These facilities should be diligently cultivated and extended. They will be

much aided by some such form and agency of national economic planning as has been outlined by Mr. Harriman.

The eventual establishment of industrial self-control, if pursued along these lines, through the agencies of voluntary co-operation in industry and commerce, may, not unlikely, fall along the following lines:

1. Establishment of dependable and enforceable controls of finance and credit. Credit has become the universal common denominator which may dilute or even dissolve an industry. Public control of the major credit instrumentalities and the major credit policies has been shown by impressive experience in recent years to be necessary to the security of industry and commerce. It has been said that the present general economic distress is due largely to the accumulated consequences of unwise and unwarranted past use of credit. If so, it is fair to say that the control of credit should be made so secure that no industry hereafter will be made the helpless victim of the ignorance or the deliberate folly of another.

2. Industry-planning to secure stabilization. This, with the general guidance of a suitable national economic planning agency under impressive auspices, may be undertaken by industries separately through their trade associations.

3. Research, to insure continued technological progress.

4. Insurance against the inevitable uncertainties and contingencies which seem to be inherent in any scheme to secure the benefits of both stabilization and applied science, and at the same time to avoid the extremes of stagnation on the one hand and of economic chaos on the other.

Economic planning, under such auspices, ought to be effective in reducing "bad times" to a minimum. Beyond that minimum, the "good times" may be made to pay the cost of tiding over the "bad times."

Individualism, with science as a generator, stabilization through industry-planning as a conservator, and insurance as a security against the extremes of both, may, I believe, be made ultimately to provide an effective protection against the adverse consequences of the swings of the "business cycle."

ROUND TABLE CONFERENCES

INSTITUTIONAL ECONOMICS

W. H. KIEKHOFFER, *Chairman*

JOHN MAURICE CLARK.—I intend to discuss the place of institutional thinking in economics, but I shall not attempt to define institutional economics. It may be defined narrowly as only that kind of thinking directly concerned with institutional aspects of economic life, or, broadly, as all thinking genuinely oriented by a serious regard for, and study of, such institutional aspects. Neither shall I attempt to specify the precise place of institutional thinking in economics. Different thinkers employ it differently, and there is no reason for supposing that the possibilities are exhausted. Yet not any and every statement of institutions is "institutionalism" as the present-day institutionalist means it. He appears to define it in terms of certain characteristic concepts of the nature of institutions and certain attitudes toward them.

He conceives them, not as eternally natural verities, nor on the other hand as he conceives them, as Bentham appeared to do, as mechanisms to be revised or altered in the fashion in which an engineer devises or alters physical mechanisms to produce a given desired result. They are conceived rather as evolving patterns of human behavior, though subject perhaps in rare instances to revolutionary change. They are played on by a broad range of motives, not the outcome of a single one nor of a segregated group of "economic" motives. Being forms of human action, they are not sharply distinct from the human nature which operates within them; hence a modern institutionalist will not hold to formulas which say that institutions are faultless and the troubles lie in human nature; or that human nature is all right and the whole trouble lies with our inherited institutions. He is more likely to hold that human nature is itself a social institution. And he is likely to hold that institutions have their own continuity and life processes distinct from, though not independent of, those of the individual human beings who work within them and whose collective behavior goes to make them up.

The institutional attitude, or group of attitudes, may be approached by telling what it is not. It does not "take institutions for granted"—which seems to mean taking for granted a "stereotype" as an adequate representation of an institution. It does not adopt the "wholesale" view that we must choose between pure competition or pure monopoly, or between pure private enterprise and pure socialism. It takes for granted "retail" or piecemeal change as a continuous process, but it does not view such changes as did the typical nineteenth-century liberal, who assumed that the essence of the institution (the stereotype) persisted unchanged by such piecemeal reforms of particular abuses. He views them rather as steps in the process of cumulative change or evolution. He does not view the stereotype as natural, and specific changes as unnatural or artificial; all forms of behavior are equally natural.

The modern institutionalist does not possess the skepticism of all changes which marked the apostle of natural rights; but he may have a skepticism of his own, of a different sort, based on the difficulty of either stopping or guid-

ing the processes of evolution. On the other hand, he has a natural kinship with behaviorism, and the behaviorist seems to have a natural affinity (which is probably neither logical nor necessary) for the view that human nature can be changed to any extent by changing the environment.

The variety of work coming under the general head of institutionalism may be exemplified by the works of Sismondi, of Marx, of the German Historical School, of Veblen, of B. M. Anderson, of C. H. Cooley, the historico-deductive work of Sombart, the studies of legal institutions found in Ely's *Property and Contract*, in Commons' *Legal Foundations of Capitalism*, and in the studies of Roscoe Pound, R. L. Hale, recent works of W. H. Hamilton, and a growing number of the younger law writers. The work of the institutionalist in the quantitative-descriptive field is typified in the studies of W. C. Mitchell.

As economics progresses in the direction of a description of economic behavior, serious questions are raised, not only as to the vitality of the older types of economic law, but whether anything deserving the name "economic law" can survive. Sequences there are, but they are relative to time and place. The Federal Reserve system has altered the "laws" of banking panics, and our ambition to alter the business cycle may some day bear fruit. The older conception of "natural levels," obsolete as it may appear, may survive by adapting itself in two directions. It does not explain dynamic facts, but it may still be a useful step in isolating their various causal components—something which mere description can never do. And in modified form it may serve to suggest types of limits to which reforms or evolutionary changes are still subject.

But these "natural" levels are not really natural; they are merely logical; and we are learning that institutions are commonly mixtures of logically incongruous elements. This is true of the existing system, and still more true of any plan for controlling the business cycle without abolishing private enterprise. To an institutionalist, that fact should not a priori be a fatal objection.

PAUL T. HOMAN.—I shall undertake to make an appraisal of the accomplishments of institutional economics.¹ An institutional economics, differentiated from other economics by discoverable criteria, is largely an intellectual fiction, substantially devoid of content. Fifteen years ago it was a faith, and to this faith I assign important historical consequences. The faith was that an adequate organon of economic thought could be achieved by the accumulation of data and analysis of it in terms of an evolutionary process. It included a negation of the picture of economic relationships imbedded in systematic economic theory. The negation extended not only to the ideology, but partially to the methods used in formulating that body of theory. The constructive faith supported the negation, but both were important. They caused the whole structure of economic theory to be subjected to searching and critical scrutiny. Time does not permit me to develop what seems to me to have happened to systematic economic theory. It no longer furnishes an economic philosophy. Its more comprehensive generalizations are in disrepute, or else are labeled with proper warning of their partial or hypothetical character. Its essential service of furnishing paths through the jungles of data and tools of thought

¹ Professor Homan's paper will be published in full in the March, 1932, number of the *American Economic Review*.

r the labors of analysis have been made sufficiently plain to all except the ind. Its waning importance as a picture of the economic order is plain. Its completeness as to methods and generalized results is not open to question. It, since systematic theory is not my topic, it may be merely said that its reduction to its minimum terms of intellectual and analytical usefulness has demonstrated its necessary functions.

In addition, supported by a negation and clothed in faith, some economists have pursued their labors with fruitful results. One would be ignorant indeed to deny the importance of the work of men called institutionalists. He would be misinformed if he supposed that their faith was not in some measure responsible for directing them toward the tasks they have taken up. But they have not created an institutional economics. It is the belief which they have that is the astonishing current fiction.

HUGH M. FLETCHER.—The methodology of institutional economics has been accorded but little attention. One reason which is advanced in explanation of the neglect is misleading as to the nature of this body of thought, and to designate institutional economics as a body of thought is an assumption. I refer to the lack of progress in the logic of the inductive sciences since the publication of Mill's *System of Logic* nearly one hundred years ago. The implication is that neo-classical economics is deductive and that institutional economics is inductive. The distinction is by no means so simple. The institutional theorists, like other theorists, do not begin to construct their system *ex nihilo*. *Nihil ex nihilo exit*. They do not begin even with the bare facts of economic life, whatever these may be. At best they begin with some conception of what they want to do—in other words with purposes and preconceptions. These warp their selection of facts, and a selection of facts results only in generalizations more or less unreal, as unreal as the postulates of neo-classical economics. Both bodies of economic theory face the same problems of methodology. The threadbare distinction between deduction and induction does not meet the issue at all.

A significant distinction is that between institutional economics and inductive verifications of the theories of neo-classical economics. Some of the older theories are plainly so relevant to special considerations of time and place that inductive verifications are not worth the effort required. The older theories, nevertheless, will always remain unusually profitable subjects of study, but not from the point of view of their rightness or wrongness. These terms have in fact little if any meaning. Economic theories as such are neither right nor wrong. They are merely relevant to the underlying circumstances which made their appearance possible, and changes in such circumstances account for their demise—except in the annual crop of textbooks intended for undergraduate consumption.

The distinction between induction and deduction does, nevertheless, open an interesting phase of the subject. It is alleged that neo-classical theorists start with postulates and reason therefrom, and that institutional theorists start with facts—or a selection of supposedly relevant facts—and reason therefrom. Facts as facts are of no significance—a statement which reminds me of Huxley's misleading remark as to the nature of a tragedy; namely,

that a tragedy is a beautiful theory slain by an ugly fact. Facts, to repeat, are significant—whether for economic reform or for the construction of a system of economic theory—only in so far as they can be formulated into generalizations. Just so soon as the institutional theorist commences to generalize he parts company with the facts, for necessarily his generalizations cannot sum up all the facts. The facts of economic life are too diverse for this. In reality the expression “all the facts” has no meaning. Witness, for example, the futile attempts to construct generalizations as to the nature of the business cycle—the happy hunting ground of the institutionalists.

The distinction between implicit and explicit postulates merits attention. By the former is meant postulates which the theorist himself more or less fails to recognize. They are ordinarily reflections of the circumstances of his time and are accepted quite uncritically. An excellent example is found in the work of Ricardo. As to explicit postulates, by these we mean postulates which are fully recognized and stated with extreme care, and within the limitations of which a theorist proceeds to construct his system. The best example is doubtless the work of John Bates Clark. The point which I desire to make is that institutional economics must begin somewhere, and that as yet it has done little or nothing in the way of formulating its explicit postulates. In this connection it is important to raise a rather vital issue. It is stated that institutional economics has destroyed the postulates of neo-classical economics and that this body of thought need therefore no longer concern us—a statement which completely misconceives the nature and functions of postulates. Postulates, to repeat, are of two kinds, implicit and explicit. The latter can change only by the deliberate decision of the theorist who sets them up for the express purpose of constructing a system of economic theory. As such, they are neither right nor wrong; these terms again have no meaning. If a theorist asserts that his postulates are so and so, one can challenge his system only in so far as it fails to run true thereto. To be sure one may argue that his postulates might be better than they are, but this raises a quite different problem, the problem of finding the best set of postulates, whatever “best” may mean in this context.

As to implicit postulates, the material and intellectual circumstances of the time which the theorist accepts unwittingly, the same problem appears in connection with institutional economics as in connection with other bodies of economic theory. The relativity of classical political economy to the circumstances of late eighteenth and early nineteenth century England is too evident to require exposition. As to the relativity of institutional economics—and surely no one will deny its relativity to the material and intellectual circumstances of its time—a body of thought, be it noted, is supported from below, not suspended from above after the manner of orthodox theology. To put the matter technically, institutional economics is epiphenomenal to a given set of conditions. I venture the following suggestion as to the relativity of such generalizations as the institutional theorists have achieved, if any; namely, that institutional economics purports to provide a basis for remedial action in the hope of improving, if not the worst of all possible economic worlds, then at least a world which is as bad as we care to see it. Again, to

put the matter technically, institutional economics is epiphenomenal to a planned economy—a planned economy in contrast to the natural or spontaneous economy of classical political economy. As to the relativity of institutional economics to intellectual conditions, it is apparent that this body of theory—again an assumption—is but the economic counterpart of the experimental and pragmatic eclecticism of the twentieth century, and will shift in character as its intellectual foundations shift. In the course of time, therefore, as material and intellectual factors change, institutional economics will go by the boards—a rather wooden way to put it—just as economic orthodoxy is now going.

MAX J. WASSERMAN.—The conception of the human element by the institutional school may well be called *personality* rather than *man*, for it stresses the powers, the force of action, the perquisites, and the attributes which humans and groups have conquered for themselves in organized society. *Personality* is man conceived as a bundle of rights and powers; it is man in his institutional aspects. Conceived in this way, personality appears as an element of varying importance, of changing magnitude and intensity. It is clear that man can use a number of institutions in order to lend action to his will; his personality will increase as he uses a larger number. Some institutions are more efficient than others and, over time, some gain in vigor while others lose. The magnitude of personality, then, will increase or decrease as institutions of different types are utilized.

The following paragraphs will attempt to show what institutions are utilized to extend and contract personality, how both individuals and groups employ them towards this end, and the results of such utilization upon economic theory.

The most obvious institution employed in the extension of personality is private property. After those internal qualities which we commonly regard as inseparable from man—what one is—come those external qualities which the régime of private property confers—what one has. Aggrandizement through the use of property is so manifest that long explanations of it are hardly necessary. It is patent that one's position enlarges and contracts with the accretions and diminutions of property.

The desire to possess and control has led to the creation of the institution of credit. In part, credit is a function of property—the employment of what one has towards the obtainment of what one desires but has not. But credit is not always a perquisite of property; much credit is granted on the basis of the personal qualities included in the vague term, "confidence." The use of credit serves to enlarge one's sphere of influence, for it enables one to multiply the effectiveness of economic activity, to realize plans which without it must remain unachieved, to hold and control with reference to influence upon prices and distributive shares, to create and produce beyond the scope permitted by actual assets, to trade and move goods where its absence would render this impossible, to augment the opportunities for profit.

A third institution, the corporation, not only serves a similar goal, but does it without the risks attached to credit. It is not, as credit, an element attached to the qualities of man and his possessions. It is rather an extension, or more

exactly, a multiplication, of the personality of men considered as both individuals and as groups. It is a means of doubling the original powers of man by a method of creating an *alter ego*. Some legal scholars maintain that there are two types of personality: physical and corporate or societal. From the point of view here maintained there is but one type—societal—for physical being just as corporate entities, may be said to enjoy only those attributes which society, through its laws and customs, assigns them. The important position which many enterprisers have attained may be partially explained by the self-multiplication through the use of groups of corporations.

Politico-economic institutions giving expression to the ideals of democracy and *laissez faire* also serve to determine human dimensions both by increasing the rights of some and diminishing those of others and by extending or contracting the field in which these rights may be exercised. These institutions serve to augment or lessen men considered both as members of a group and as individuals and in this way differ from the institutions already named above.

Proletarians have but rarely made use of institutions such as property, the corporation, or credit for the purpose of increasing their individual power and capacities. While, under a system of democratic *laissez faire*, such an aim is doubtless not illegal, the current capitalistic system does not conveniently provide for it. Workers, if they cannot easily enlarge their individual personalities, may, through union, give themselves a group force. The inability of the worker to utilize with facility those means of individual development at the disposition of the enterpriser places him under a handicap which the creation of groups does not entirely overcome. There is, in the institution of the wage contract, a positive impediment to the development of the worker as a personality which serves at the same time to magnify the employer. The former is tacitly required to be loyal to, and to espouse the cause of, the latter. This minimizes the worker and redounds to the advantage of the enterprise. Of course, certain employments may offer compensations resulting from what is termed "connections" or "prospects" which may offset this shrinkage.

It is not here maintained that these are the only institutions which react upon the magnitude of personality, that such reaction is their principal effect nor that they were rationally conceived with this aim in mind. In practice, however, they carry as one of their functions the possibility of determining the measure of personality. What use, one may ask, can be made of this conception?

Since economic organization is the work of man it will necessarily have those characteristics which the nature of man gives it. It will receive the impression of man in proportion to his power to imprint his nature upon it or to the capacity of his personality to dominate it. Society will resemble chiefly those who are able thus to utilize institutions, for society is not a cross section of many equivalent individuals but of personalities having widely differing values. The present business depression affords a timely illustration of this theory. A part of the blame for our situation is commonly ascribed to the errors, the bad judgment, the lack of foresight and plan, of our business leaders. While the business depression is far too complex to lend itself to such a simple, unilateral explanation, these elements are, without doubt, factors in the

situation. The force which these enterpriser shortcomings wield in our economic life can be understood only when the relatively large magnitude of their personalities is grasped. These leaders have employed institutions to aggrandize their personalities. They are relatively large factors in our economic life because they are large bundles of rights. Consequently their decisions carry great weight; they are multiplied and ramified by all the institutions attached to their persons. It is possible that the structure and mechanism of the economic organisation, which the institutionalists have undertaken to interpret, may find a partial explanation by means of the notion here outlined.

Since the theoretical phases of the science are held to be the results of man's calculations, it is necessary to consider the relative importance which these computations may have. Classical and Austrian theory have shown some of the elements which here apply. It may contribute to the analysis if consideration be given to the weight which expanding or contracting personality can give these calculations.

Further, the idea here presented may have some utility in the economic interpretation of history. Among other things, the rise and fall of classes and groups, the domination of individuals and interests, may be partially explained by its use. As new institutions came into being, they conferred upon some new strength. The decline in the relative importance of some of the older institutions served to sap the strength of others who depended upon them. The personalities of individuals and classes varied in magnitude as the institutions which they used altered in importance.

Finally, if institutions are attached to men, if they are shown to be but devices for carrying out the will of men and lending force to this will, institutional economics will become, in addition to a social science, a human or homo-centric science. Some conceptions of institutionalism unfortunately appear to overlook this aspect. A study of the rôle of personality in its relations to institutions may help to remedy this defect.

WILLARD E. ATKINS.—Institutionalism need not be a uniform thing. Its diversity indicates that even secluded economic philosophers see in the world contradictory views and conflicting interests. Lively minds disagree, if not about facts, about their meanings; so should economists.

Davenport's economics expresses his emphasis upon acquisitiveness and discontent with muddled socio-ethical idealism. Commons' classification of phenomena supports his philosophy of social control. Adam Smith's economics expressed his willingness to trust men, not kings. Systems of theory are and should be as diverse as philosophies of life.

Yet, amid disagreement, institutionalists have this core of agreement: (1) group behavior, not price, should be central in economic thinking; (2) more attention should be given to uniformities of custom, habit, and law as modes of organizing economic life; (3) individuals are influenced by motives that cannot be quantitatively measured; (4) economic behavior is constantly changing; therefore, economic generalizations should specify limits of culture and time to which they apply; (5) it is the task of the economist to study the sources of the conflict of interests in the existing social structure as an integral factor rather than a something diverging from a hypothetical norm.

Moreover, to institutionalists, economics, like the physical sciences, describe rather than explain. Though incompleteness is inherent in descriptive generalisation, irrelevance need arise only from the deliberation of hypotheses such as the formal equilibrium, incapable of empirical

Nor is institutionalism in conflict with every aspect of classical economics. Marshall, Mill, and Ricardo told part of the institutional story in occasional paragraphs, sentences, or footnotes. To the modern institutionalist, the occasional footnote becomes a book, and the classical book becomes a footnote requiring revision.

FRANCIS D. TYSON.—Though minimising the importance of the method of the newer approach to economics, Professor Fletcher in his logical analysis accepts the main contentions of the institutional trend he is critical of economic theories as such," he says, "are neither right nor wrong; they are relevant to the underlying circumstances which made their appearance, and changes in such circumstances account for their demise." He notes the unique relativity of classicism to the circumstances of late eighteenth and early nineteenth century England. In making reluctant admission of the lack of universality of neo-classicism—"not so evident as its critics like to think"—he mentions "the relativity of neo-classical economics to the circumstances of the late nineteenth century."

This seems to me an error. He misses the main contention of the present writers; namely, that neo-classicism is, in large part, not relevant to the facts of that recent time, but rather to the older classical postulates formulated many centuries earlier. Neo-classicism represents a refurbishing—a labored, ineffectual defense of older generalizations, which interpreted in oversimplified fashion the life and motives of the English dominant classes. What newer writers object to is the refusal of many academic economists to discard old postulates, like free competition, in the light of current industrial conditions. It was this stultifying procedure, followed in charmed circles in England as well as in British universities, and futilely claiming adequacy as a science for a revamped orthodoxy, which led Professor Mitchell to denounce dialectical sophistry, and to point out that this body of futile theory would be disproven, but simply would be ignored as inconsequential.

The insistence that an abstract dialect analysis is adequate in economics has not passed, but still wields great influence. If Professor Homan does this, will he read from this point of view Professor Carver's able, thorough treatment of "The Shorter Working Day and Week," presented at a session of this year's conference (cf. p. 8). If the theoretic assumptions are granted, the reasoning is masterly and utterly convincing. But the realist student of industry today will question whether such an approach really comes to grips with a pressing factual problem of economic policy. There is danger that such an economics will continue to essay the rôle of a century ago, offering irrefutable argument against the possibility of economic and social reform. Is it not questionable whether such theory has any valid claim to speak with authority on vital industrial issues? Unregenerate neo-orthodoxy has made a break with old methods inevitable. Call the more realistic

institutional, if you do not object to an informative term that is prone of thought.

Progressives are, I feel, seeking modestly and open-mindedly—with regard for the high intellectual traditions of the economist's craft—to a more empirical approach to the study of economic behavior. They aim, in a broader province, to review customary instrumental activity, including law and the state, as well as the pricing system, studying, as Professor Commons indicates in his recent article, the functions of bargaining, rationing, managing; working rules of action; and the social relationships of decision, conflict, and order. This newer economics, again, stresses the importance of non-pecuniary as well as of pecuniary motives.

One important contribution in economics is to be made by the newer approach—and few informed students will question that it has already been made—may it fairly be said, as Fletcher does, that “institutionalists are in a boat with the classicists, and dare not rock it, for they too will be tossed to sea by the shifting currents of economic circumstances”? This is a psychological defense of the old; to continue the maritime figure, it is like a man in a row boat on a stormy sea finding consolation in the hope that some hazard he faces will sink an ocean liner.

Institutionalism, I submit, may claim to be more vital than neo-classicism in technique of economic study. It seeks to pursue a more scientific method, aided by statistics, in continuously resubjecting its tentative generalizations to actual verification in the complex actual world. In that sense institutionalism is more “right” than classicism, because more effective and more significant in renewing the difficult task of building an economic science.

WILLIAM W. HEWETT.—As yet no school of economic thought has succeeded in building up a body of comprehensive theory that may serve as an adequate substitute for the rigorous training received by a careful study of classical economics. The most severe indictment that I can advance against institutionalism is the inadequate preparation it affords to students of our science. Before specialized work can be carried on in the various applied fields of economics, a firm foundation must be built. It is significant that some of the best writers commonly classified with the institutionalists have had excellent preparation in the old classical doctrine. My experience with graduate students indicates that present-day institutionalists are not passing on to their students the equivalent of the training they received. The maze of interrelationships of economic life, the reaction of each part on every other part, the functioning of the system as a whole, all are either lost to or but vaguely understood by a student of economics whose point of departure is the study of institutions as separate entities.

May I add that I see no reason why an economist working in the field of quantitative economics such as business cycles, or in the study of some institution such as coal, banking, labor organization, or the trust movement, must be classified as an institutionalist. The work of such staunch neo-classicists as Cassig in the tariff, Viner in international trade, Seager in labor and the trust movement, and Seligman in taxation certainly does not automatically label

them institutionalists. After all, there are only two ways of approaching the study of economic life, the horizontal and the vertical. The horizontal considers a cross-section of economic life at a point of time and is commonly spoken of as static. The vertical considers historic growth and is usually characterized as dynamic. The student making the vertical approach tends to draw his analogies from biology, and thinks of himself frequently as an institutionalist. The student making the horizontal approach draws his analogy from the science of physics. The general field of economics has grown to such huge proportions that each economist must specialize in but one small phase for purposes of research, and there is room for all points of view without abandoning the product of the best economic thought built up as a result of a hundred years of brilliant work.

R. T. ELY.—Professor Homan has spoken frankly and bluntly and I am going to follow his example without which I might not have the courage to say what I think. The first reaction that I get is sheer ignorance. I had the same reaction a year ago at Cleveland when *laissez faire* was discussed and the ideas of a generation ago were brought forward as something new. When I speak about ignorance, I mean ignorance of the history of economic thought and especially of American economic thought.

Institutional economics began in this country in 1885. Read the "Statement of Principles" by the founders of the American Economic Association as given in Volume I of our publications. I do not know where you will find a better statement of those principles which characterize institutional economics than you find in this first volume.

At this session and previously we have heard a good deal about the following concepts as characterizing institutional economics: relativity, economic evolution, property, contract, custom, and competition. All these ideas were emphasized by the founders of the American Economic Association and are clearly expressed in our early writings way back in 1885 and in the following years.

Much has been made of the method to be followed in economics and induction and deduction have been discussed. So far as I have heard, there is nothing new in this discussion. I do not mean that what has been said is not both correct and worth while, but I do mean that similar discussions took place in the eighties, and it seems to me the discussions at that time were quite as thorough and quite as far-reaching as the discussions which we have heard.

I think it would be well for a good many who are presenting institutional economics as something new to read Professor Henry C. Adams' monograph on the *Relation of the State to Industrial Action*. This was published, if I recall correctly, in Volume I of the publications of the American Economic Association. In this we find ideas of relativity and of social control and a good deal that suggests the fine work that Professor John M. Clark has been doing in recent years.

As a matter of fact, in my Seminar some three years ago we took up the works of Professor John M. Clark, centering our discussions about them. I did

not feel that we were getting into any new kind of economics when we were studying John M. Clark.

Read also the early monograph of Dr. E. J. James on the gas industry. This, likewise, was published by the American Economic Association in Volume I. I think this monograph of James' belongs to institutional economics.

Turn to the writings of Professor Carl Knies of the University of Heidelberg, one of the ablest of German economists. Several American economists studied under him and were influenced by him. He was my professor and, before I went to Germany, I recall that Professor J. B. Clark studied under Knies and the influence of Knies upon Clark was marked, as is brought out especially by the earlier writings of Clark. In the writings of Knies we find an illuminating discussion, I may say indeed a profound discussion, of fundamental institutions in economic society. I have particularly in mind the discussion of property given by Knies as an institution undergoing continuous evolution and influencing thereby the distribution of wealth.

We have listened to some discussion of credit and the significance of credit in institutional economics. I think it will be generally conceded by all careful students of economic thought that Carl Knies' work on *Credit and Money* is, even today, outstanding. This book to be sure has not been translated into English and probably is not so familiar to all my younger friends as it should be.

Something has been said about the significance of corporations and it has been implied that the recognition of this significance characterizes institutional economics. The significance of corporations and their influence on production and distribution were discussed by the German economists fifty years and more ago. I would like to refer you to the monograph published by Professor Knies on the *Telegraph* and, if I recall correctly, published in 1852. That book is worth reading today and should live long in the field of institutional economics.

The significance of custom has been referred to this morning, but surely all those who were trained in the German historical school should understand the significance of custom. Schmoller dealt with custom long ago and so far as I know in many respects the writings of Schmoller on custom have not been surpassed up to the present time.

Professor John R. Commons is regarded and correctly regarded as an outstanding institutional economist. But Commons was an institutional economist way back in the nineties. Read his book on the *Distribution of Wealth* and his treatment of property as a bundle of rights—an expression that has been used in this session.

I do not want to disparage Veblen who has had a remarkable influence upon economic thought. I cannot regard him as founder of institutional economics in this country because in my judgment institutional economics as something distinctive goes back in this country to 1885. So far as Commons is concerned, I have the opinion that perhaps he would have been a better institutional economist if Veblen had never lived. This may seem harsh, but all I mean is that I am inclined to think that Veblen has pushed Commons to some extremes

which impair the value of his work. Commons and Veblen both were students of mine. I am not aware that I ever had much influence upon Veblen who was with me but a short time. I am sure that I did have influence upon Commons, however, and he has been very generous in acknowledging this.

So far as I am concerned, I want to say that I am an institutional economist or I am nothing. Consider the subjects upon which I have been working for years: property, contract, custom, and competition. I have already published two volumes on *Property and Contract*, but have not published what I have written on custom and competition. I have both in manuscript form, but other things have necessarily absorbed my time and strength so that I have not as yet been able to bring these manuscripts up to the point where I have felt like publishing them. I hope, however, that I shall be able to go on with the work in these lines and publish what I have. I may add that I have paid particular attention to one kind of property; namely, landed property; and have published some things on that subject. All these topics, it seems to me, clearly belong in the field of institutional economics. They are fundamental; they are relative—constantly changing, constantly influencing our economic thought and practice, and making both what they are.

ELASTICITY OF DEMAND AS A USEFUL MARKETING CONCEPT

EDMUND D. MCGARRY, *Chairman*

As strictly defined by economists, the phrase "elasticity of demand" means the relative flexibility in the amounts of goods which would be taken from the market at various prices at a given time. If we restrict the term elasticity to a given time, it will be seen that only one point on the demand curve can be statistically determined and that is the point determined by the price and the amount of goods actually taken by those demanding it. All other points on the demand curve are assumed and must be mere conjectures. If, however, we attempt to build up a curve by taking different points of time, we know that the resulting curve may not only be shifted on the diagram but that its shape and direction will probably be changed. In spite of the phrase "other things being equal," we know that in the practical marketing world other things do not remain equal. Our problem in this meeting is not so much to give further refinements to the orthodox concept of elasticity, as to discover what these other things are, and what their influence is upon elasticity of demand.

How many more units of a goods can be sold if the price is lowered by a certain amount? Will this relationship between price and quantity demanded remain constant during a rising or a falling market? What are the elements which determine the quantities which will be sold at various prices? Can these elements be weighed and the demand be forecasted? Can the relationship between price and demand be controlled to any extent by advertising? It is the answers to these and like questions which will determine whether or not the concept of elasticity of demand can be of use to the marketer of goods.

Our conclusion is a simple one. The economist's concept of elasticity of demand is useful to the marketer only as an aid in asking important questions. A strict application of the concept, in the sense of building demand schedules of precise application, is beyond the realm of practicality. An exact answer concerning elasticity is not available. The chief problem is to find data on which to make an intelligent answer to the questions asked. The pricing problem is one of the most complicated and difficult of all problems in marketing. Its correct answer is of the utmost importance in the conduct of a business. Its answer lies only in a judgment to be derived from imperfect data. What these data are has been suggested in part in the discussion which we have given.

NEIL H. BORDEN.—My paper is limited to a consideration of the application of the concept of the elasticity of demand to the marketing of consumers' goods, particularly those which have undergone a manufacturing process. I am accepting the definition of the orthodox economists, taking Marshall as the leading spokesman: "Elasticity or responsiveness of demand is great or small as the amount demanded increases much or little for a given fall in price."

The question appears almost simple and naïve when we state it as follows: Of what practical use might it be to the manufacturer or merchant of con-

sumers' goods to know the degree of responsiveness in demand for his type of product to changes in price?

If the answer to the question of responsiveness of demand to price changes were readily available, the conduct of businesses would be considerably simplified. Volume and prices provide basic data in planning the conduct of any business. To the extent that supply is under the control of a particular company, i.e., to the extent that monopoly holds, to that extent the elasticity concept has direct bearing on the company's pricing policy. The more competitive a business and the less control it exercises over market supply, the less, ordinarily, does the elasticity of demand enter directly into its pricing determinations, although ultimately the company may be affected very materially by the degree of responsiveness of aggregate demand to price changes.

For the monopolist or virtual monopolist, the question of responsiveness of demand to price is of greatest importance because the control of price and supply lies largely in his own hands, and the size of his profit depends on a proper determination of prices. For our electric light companies and other utilities the elasticity of demand has a direct bearing in determining prices. In this field the concept is also of value to the student in attempting to appraise the social effect of the application of monopoly prices.

Looking to fields other than public utilities, we find the elasticity of demand a matter of direct importance in setting prices among companies which, through control of materials or through patents, enjoy a greater or less degree of monopoly for certain products. I refer especially to products for which satisfactory substitutes are not readily available. The General Electric Company with its control of tungsten lamps, the earlier experience of the Eastman Kodak Company with its Kodak films, the Ethyl Gasoline Corporation with Ethyl gas, are examples. To these companies an answer to the question of responsiveness of demand to price changes is of first importance. The determination of price rests directly with the individual firms. Failure to price correctly may mean a great difference in profits.

We find some types of products protected by a patent or a secret process which gives to them a limited monopoly. Articles of just the same kind are not produced by others, yet there are numerous substitute articles on the market filling the same need of consumers. Examples of such products are found in Beetleware, in the Telechron clock, or in the Gillette razor previous to the expiration of its patents. In such situations a company, because of its patented or secret process, is free from direct competition; it is free to set its prices as it will. The company must, however, recognize that at any time the demand for its product is to a large extent governed by the relation of its prices to those of substitute products.

The manufacturer of an individualized branded article, attempting to build a limited monopoly and to keep as far as possible outside the realm of direct price competition, must, in his pricing policy, take account of the responsiveness of demand to different prices. Although he has the question of responsiveness before him, unfortunately he does not have the answer.

In such instances he can only guess how elastic demand actually is. Price changes for such products are seldom made by the manufacturer; accord-

gely, little experience on which to base judgments of responsiveness is provided. Moreover, although a high degree of brand specification may be attained, the extent of monopoly control is limited by the fact that substitute or alternative products are available and their prices and their desirability among consumers—as determined by their ability to give satisfaction and by the amount and effectiveness of their advertising—have a more or less direct influence on the demand schedules of the product in question. Accordingly, although such a firm may be free in setting its own price, it may defeat its own ends if it fails to consider constantly the position of substitute articles.

What I have just said with regard to the pricing of highly individualized branded articles applies with greater or less force to all branded articles. The purpose of branding is to individualize products and, in so far as possible, to remove them from direct competition. Each may be considered as a product of separate quality with its own theoretical demand schedule. But such a statement means little when we recognize that the demand schedule is determined to considerable extent by the status of substitute products or brands. When substitutes are numerous and satisfactory in meeting consumers' needs, the individual manufacturer virtually loses control over the pricing of his product. The prices of substitutes may go far in dictating his prices.

Finally, we reach the situation where brand and supposed differentiation of quality between the output of manufacturers means so little that different brands are looked upon by the consumer as practically the same product. The manufacturer in this situation is essentially in the same position as the manufacturer who sells a product unbranded, in so far as any direct bearing of the elasticity of demand upon his own pricing activities is concerned. To such manufacturer, pricing is a matter of attack or defense, a jockeying which is determined by forces beyond his control. He sells only a small portion of the total supply. Price changes put into effect are dictated by considerations other than the total market demand that might be expected to result from particular prices. He is merely one seller in the market competing with other sellers, and from the combined activities of all, a market price results.

Not infrequently we find a manufacturer, even in a highly competitive position, on the basis of his judgment of responsiveness of demand, taking the initiative in materially lowering prices. He does so in expectation of tapping new strata of demand theretofore untouched. Such a policy was adopted apparently by Mr. Ford in the low-price automobile field.

In industries where overcapacity has been built up, manufacturers and investors have failed to learn what probable demand schedules were and to be guided thereby in building factories to supply demand. We must recognize the desirability from an economic standpoint of reasonable estimates of probable demand for different types of products to guide in the extension of productive capacity. The elasticity concept is involved in all such estimates.

Let us consider briefly the value of the concept to the retailer. Ordinarily the price changes of the retailer are not set with the elasticity of demand in mind. Among other considerations, his prices may be guided by wholesale prices, by customary retail prices, by established retail price lines, by what he thinks he can get from his customers for articles that are not subject to

direct comparisons, by special prices to attract immediate patronage, or by reference to what competitors are charging. He does not ordinarily make changes in price with thought of increasing or decreasing the total demand in his market, but rather with regard to his competitive position in the market as a seller.

Certain instances are found in which the retailer does call into use the concept of elasticity. Either he or his whole market may suffer temporarily from an oversupply of a product, or large retailers sometimes buy large lots of distress merchandise for quick sale. This applies particularly to articles subject to obsolescence because of style or design. Another example is found in some of the large variety chains, such as Woolworth, which have pioneered in selling merchandise at new low prices, acting in part on the elasticity of demand. They have apparently aimed not merely at getting an advantage in the competitive price market, but have counted upon opening up new strata of demand with such prices.

Up to this point, I have endeavored to show various situations in which the elasticity of demand is directly or indirectly useful to the individual business firm. In every case, however, I have noted that all that the concept does for the business man is to raise the question of responsiveness of demand to price changes. It is a guide to thought and no more. No knowledge is given. No formula is provided. The real task is to secure data on which to formulate an answer to the questions concerning responsiveness. Our knowledge of demand curves for consumers' goods is sketchy and inaccurate. Construction of the economist's demand schedule for any consumers' goods, to the point where it is of use to the manufacturer facing an exacting pricing problem, is beyond the realm of practicality. We have noted a few of the more outstanding difficulties in constructing a demand schedule. Marshall has given a pretty complete list of the complicating factors, but our limited space does not allow us to amplify what he has given.

ROLAND S. VAILE.—The value of an industrial installation is a derived value. The installation is made in the hope that it will return an income. Rational buying motives and a fairly long-time point of view dominate the situation.

Because this is true, one of three situations will generally control the sales of industrial installations other than those for replacement as a result of depreciation: (a) a larger realized demand for the consumer goods as a result of a general reduction in its price; (b) a larger realized demand for the consumer goods as a result of a change in the demand schedule for it; (c) an opportunity to lower an individual firm's cost of production of the consumer goods relative to that of competitors, thus permitting either a larger profit per unit output, or a larger percentage of total consumer patronage.

The first of these situations is the result of elasticity of demand in the consumer market. Its reflection into the producer's market will depend upon the reason for the lowered consumer price. If that results from enlivened competition or lowered costs in the marketing processes, there will be an actual change in the demand schedule for producer's goods; that is, more

nachines will be sold than formerly at the same, or even a higher, price so that the increased quantity of consumer's goods will be forthcoming.

If, on the other hand, the impetus for lowered consumer price comes from manufacturers with unused capacity, in order that the optimum output may be sold, there may be no change at all in the sales of producer's goods. In any case, true elasticity of demand for the producer's goods is not likely to be the controlling factor; that is, a reduction in the price of machines would not increase the realized demand for them.

In the second case, if the industry is not overexpanded, the increase in demand for consumer goods will result in a proportional increase in the existing producer plant. This may temporarily result in a much more than proportional increase in the annual demand for producer's goods without reference to change in price. This is not a matter of elasticity of demand at all, but I shall refer to it again in another connection later. In an expanding industry, the rate of expansion may be governed, of course, by the cost of installations. The amount of such cost has its effect both on anticipated profits and on the ability to finance the undertaking. This is a matter of elasticity, although, as in the next case, usually it is not an important factor in determining the total volume of sales.

In the third case, if the cost of an installation is lowered sufficiently so that the cost of the consumer goods is lowered as a result, then more installations will be made. This is a matter of elasticity. It is comparable in the nature of its effect to any other technological improvement. It is not likely, however, to be of great importance, for the following reasons:

Since 1920 the total return to all capital used in manufacturing, including working capital, has averaged about 25 per cent of the manufacturers' value of manufactured goods. While there are no thoroughly reliable figures available, yet it seems conservative to estimate that the annual cost of capital goods in depreciation and interest does not exceed 10 per cent of the consumer's price. A reduction of 10 per cent in the cost of all construction and installation in a plant would permit only a 1 per cent reduction in the price of consumer goods. And in few cases would the cost of all parts of an installation be reduced simultaneously; so the actual possibilities are much less.

Technological changes are proceeding so rapidly that reductions in cost of manufactured goods can be demonstrated on the grounds of higher output per employee and per square foot of factory. These savings are so convincing that it is not necessary to emphasize strongly the cost of the installation. Of course, since buying is rational at this point, competitive price is important, but general lowering of price throughout the machine tool industry would accomplish little in increased sales.

A much more important element in the demand for industrial installations is found in the real change in demand for consumer goods. I was an innocent bystander last summer in that discussion between Professors Alvin Hansen and Ragnar Frisch¹. In the discussion, Hansen had followed J. M. Clark in saying that as soon as the rate of expansion of realized demand for consumer's

¹ *Jour. Pol. Econ.*, Dec., 1931.

goods commences to fall, the demand for producer's goods should properly fall; that is, the requirements fall. Frisch maintained that this need not be the case, and in his article he shows clearly that under certain conditions it will not be.

I am still of the opinion, however, that under most practical conditions, when the rate of increase in demand for a consumer good commences to fall, it does so abruptly enough so that the total requirements for industrial installations fall. I want, therefore, to examine the conditions under which this will be the case.

The demand for installation equipment is for two purposes: expansion and replacement. Obviously as long as expansion continues, the requirements for replacement will increase, on the assumption that the depreciation rate does not decrease. When the rate of expansion of realized consumer demand decreases the total requirements for installations will fall whenever the new capacity required for expansion is enough below the expansion requirements of the preceding year more than to offset the increase in depreciation.

The total requirement for installations will fall wherever the unit change in realized consumer demand the previous year multiplied by the complement of the rate of depreciation is less than the unit change in the present year. Or, to employ the terms used by Frisch, the total requirements for installations will fall when $(1 - h) \dot{Z}_{t-1} \dot{Z}_t$. In this formula h = the rate of replacement of producer goods, $\dot{Z}$ = the unit change in realized consumer demand, t = the present year, $t - 1$ = the previous year.

To illustrate, we may assume the following figures:

Rate of replacement of machines—10 per cent.

Year	Realized Consumer Demand			Producer Demand		
	Previous year	Amt. Incr.	Total this year	Replacement	Expansion	Total
1	100	10.0	110.0	1.0	1.0	2.0
2	110	9.5	119.5	1.1	0.95	2.05
or 2 ₁	110	8.5	118.5	1.1	0.85	1.95
or 2 ₂	110	4.0	114.0	1.1	0.4	1.50

In each of the three second years there is a continuation of increase in realized consumer demand. But in each case the increase is smaller than in the first year. The total producer demand, on the other hand, is strikingly different in the three cases. In the first case it increases slightly, while in the third case it decreases 25 per cent.

This relationship may be stated in other words. Whenever the amount of expansion in realized demand for consumer goods is less one year than the previous year by a percentage greater than the rate of depreciation of producer goods, the total requirements for the latter will fall. Since 5 per cent to 10 per cent is the rate of depreciation on most installations, a fall of anything more than those percentages in the amount of expansion of realized consumer demand would actually reduce requirements for producer goods.

Under business conditions the effect of changing realized demand for consumer goods may be even more striking than indicated. Depreciation gener-

ally is not an absolute thing in practice. When the fall in amount of expansion of realized consumer demand occurs, the manufacturer may maintain his dividend rate temporarily by failing to replace the machines which are completely depreciated on his books. Whether this is wise is beside the point. It does have a definite effect on the demand for consumer goods and it tends to make that demand more fluctuating than otherwise.

The last two points are not matters of elasticity, but it seems to me they must be considered in evaluating the usefulness of the concept of elasticity.

JAMES E. BOYLE.—I shall use the words "elasticity of demand" as synonymous with shift in demand or change in demand. I am departing somewhat from economic usage, which generally ties demand to the price concept. But in the market place, if we are to explain the actual changes in price, we must liberalize our definition of elasticity of demand. Demand shifts may come from price changes or from many other causes, such as changes in income, changes in refrigeration methods, changes in canning or processing methods, changes in transportation, changes in production, changes in methods of food preparation, changes in work habits of the consumers, changes in scientific knowledge of diet and nutrition, and changes in styles. Demand shifts may in turn cause price changes and many other changes.

Bread is considered as a staple food whose demand is assumed to be inelastic. The fact is that the demand for bread is very elastic. The demand for the raw material—the farmers' wheat—is still more elastic, because of the various classes and grades of wheat and the different uses for them. Over long periods of time peoples have shifted from rye to wheat, from barley to wheat, from corn to wheat.

According to the Food Research Institute there has been a 20 per cent decline in bread consumption in the United States since 1904. It occurred in two stages: a steady decline of 11 per cent, 1904-17; a sudden decline in the last half of 1917 amounting to about 10 per cent. The record-breaking crop of 1923, says the Food Research Institute, was able to move into consumption without a serious price drop, due to elasticity of demand. Says this Institute:

The experience of the year indicates that within limits, when the value of wheat in relation to other commodities drops to a distinctly low point, there is considerable elasticity in the demand, both in the exporting and the importing countries. . . . Had it not been for this surprising degree of elasticity of demand, wheat prices and value might have fallen in 1923 and 1924 to much lower levels.

This elasticity is afforded by the ready use of wheat as feed, which was furthered in several countries by relatively high prices for corn and potatoes and by the use of substitution in human diet.¹

The International Institute of Agriculture at Rome has published the statistics on shifts in wheat consumption. Our federal government has made but few studies of demand changes. The Department of Commerce in 1980 published one such study, entitled, *Apparent Per Capita Consumption of Principal Foodstuffs in the United States*. The main facts of these studies are given in the tables on the following page.

¹ *Wheat Studies*, I, 1, 47, December, 1924.

**ANNUAL AVERAGE PER CAPITA CONSUMPTION OF WHEAT, FOR FOOD, FEED, AND
SEED IN TWO FIVE-YEAR PERIODS
(In pounds)**

Decreases			Increases		
	1909-14	1922-27		1909-14	1922-27
Canada	686	414	Italy	367	403
Belgium	502	398	Denmark	246	290
France	493	429	Sweden	154	180
Australia	394	392	Portugal	121	145
Argentina	392	332	Norway	95	143
Spain	359	332	Japan	31	44
Gr. Britain	359	348			
New Zealand	359	352			
United States	321	293			
Switzerland	312	238			
Holland	264	258			
Germany	202	143			
Finland	121	95			

The first effect of the elasticity of demand in the sense in which we are using this term is to increase the risks and hence the costs of marketing. In the case of farm products we usually have a buyer's market. Substitutes and alternatives are available. In textiles we can turn from wool and silk to cotton and rayon. In food we can choose meats, fowls, fish, eggs, dairy products, or substitutes. For lard we can turn to vegetable fats and oils. So the risks of marketing are increased. There is no formula for "orderly marketing." The "eat more wheat" campaign and similar campaigns may shift consumption from one food to another, but they do not augment the total consumption of food. Much money is foolishly wasted in such advertising campaigns.

Shifts in consumption do occur over long periods of time. They sometimes occur over very short periods of time. A shift in consumption causes a change in production and hence in land utilization.

A population on a meat diet requires more acres than a population on vegetables or plant products. For example, it now requires more than two acres of crops to feed the average American one year, but only one acre to feed the average German, one-half acre to feed the average Chinese, one-fourth acre to feed the average Japanese. Seventy-five per cent of the Ameri-

CHANGES IN PER CAPITA FOOD CONSUMPTION IN POUNDS

	About 1899	1922-27	Change in pounds	Change in percents
Cereals.....	350	230	- 120	-34
Meats.....	142	145	+ 3	+ 2
Fats and oils.....	34	44	+ 10	+30
Sugar.....	61	105	+ 44	+72
Dairy products, in terms of milk. . .	800-900	1040	+160	+18
Principal fruits, in terms of fresh fruit	169	192	+ 23	+20

man's food is made up of these four categories: flour group, sugar, dairy, and meats.

The chain store selling food products, with its quick turnover, is now our best single barometer of consumer demand. What the consumer does not buy freely the store does not carry. What will sell is displayed, no matter what part of the earth it comes from. Thus the smallest unit of the chain food stores usually carries goods from some thirty-six states and at least twelve foreign countries. These stores increase competition among farmers. They force shifts in production to meet shifts in consumer demand. These shifts in production often take the direction of fewer and better varieties of standard fruits, and more standardization.

But after all, the main effect of the elasticity of demand is to increase the risks in marketing and to add to the "high cost of marketing." Since elasticity of demand cannot be controlled, it will probably be very difficult to cheapen the food marketing process to any appreciable extent, so far as these costs are due to the risks of demand changes.

DONALD R. COWAN.—Contrary to a seemingly common belief, per capita sales of every product show marked differences from area to area, and for some products they vary more than for others. The importance of the various influences upon the rate of consumption may be separated and measured by a partial and multiple correlation, including curvilinear adjustments and subject to its limitations. These measurements are of value, not only from a theoretical standpoint, but from that of the marketing organization. Knowing the responsiveness of a given group to price change, the price policy in many cases may be modified so as to bring about the most profitable volume of consumption of a given product.

HUGH E. AGNEW.—Marshall's law as stated by Professor Borden regards a market as being limited to one time and place. Otherwise the exceptions would be so numerous as to invalidate its tenets. The marketing man on the other hand looks at a market as being continuous for a period of time. When he thinks of the rug market he envisions the people who buy rugs each year, rather than a mart where this commodity is bought and sold at auction.

Obviously for a long-time market the elasticity of demand is very low in a vast number of the staples which constitute the chief items in food and other supplies. For example in 1929 with the prosperity of the country extremely high the sale of sugar was only slightly above normal, although the price was the lowest in history. The season's consumption was rigidly inelastic. The repeated failures of free newspapers has demonstrated that reducing prices, even to the vanishing point, does not stimulate demand for this commodity. It is also evident that reduced rates in street cars would not increase the number of passengers to a noticeable extent.

Even with such items as Professor Borden has enumerated—electric lights, Gillette razors, telephones—there are frequently, if not generally, other conditions which govern the making of price rather than strict demand. The inventor of the Gillette razor wanted to sell it for a dollar but the advertising man with whom he consulted clearly demonstrated to him that it would cost at least a dollar to teach each possible customer to use his newly fashioned

razor. Furthermore, if only a dollar were invested in it a little dissatisfaction would result in the loss of the customer's good will and turn his influence against future sales. If he had invested even as much as five dollars in the razor he would be willing to experiment to a greater extent in order to learn if he could adapt it to his needs. The success of the higher price is commonly known. Would a cut of 10 per cent or 15 per cent in the price of electric current or in telephone service increase consumption in the market represented by householders?

If a manufacturer can anticipate his market in such a way as to cut prices drastically (in the words of the street, to take his loss quickly), there is little doubt that the market for a large number of items may prove sufficiently elastic to absorb greater quantities of merchandise. But on the other hand if the reduction in price comes gradually and more or less continuously little or no elasticity is apparent, as it is well known that people are reluctant to buy in a falling market. It is only when there is evidence that a market has already turned and prices are advancing that investment is more readily made. This would seem to restrict Marshall's law to a very narrow field, especially if applied to a large number of items and to a considerable length of time.

JOHN F. PYLE.—These papers on the subject of the elasticity of demand as a useful marketing concept illustrate some of the difficulties encountered and the limitations met in an attempt to examine this problem in an objective manner. There are too many variables and unknowns to permit us to arrive at mathematically perfect solutions. The ability to isolate the concept, place it under the microscope, so to speak, and keep it there long enough to secure tangible evidence of its significance is no small accomplishment. We are all aware of the fact that many and, at times, quite extensive changes in the volume of sales are brought about by other factors than changes in prices. This is an important point to keep in mind. It is frequently impossible to apportion, with any great degree of accuracy, the causal force to the various sources. The fact that the demand schedules for certain goods are characterized by abrupt changes in their direction or by "breaks" is useful information for the executive entrusted with the responsibility of pricing the articles of merchandise.

Business men and economists rather generally regard the demand for industrial goods as being relatively inelastic. Many of us, no doubt, know of instances in which a rather substantial reduction in price increased sales of articles of original equipment several hundred per cent, thereby permitting large scale production and lower costs. Professor Vaile's analysis might have been improved somewhat, if he had discussed the subject of elasticity of demand for industrial goods from some such classification as raw materials, equipment, supplies, and whether the goods are bought by producers of consumer goods or by producers of producers' goods, and, further, according to the different stages of the business cycle.

I have some doubts as to whether the demand for industrial goods can be forecast or determined so nicely as Professor Vaile's table indicates. These data might just as logically be interpreted as showing a condition of over-expansion in the first year. Again, the question might be raised as to whether,

decreased by grinding for stock feed with relatively little effect on price. For as soon as the price reaches a point where other grains make feed stuffs, demand ceases automatically and rather abruptly. If under conditions stocks become so low that there is not enough wheat to meet the normal and supposedly inelastic demand for human food, the advance in price will be marked and rapid.

It follows that as a practical consideration in marketing, elasticity of demand is one thing when wheat is going rapidly into feed stuffs and an entirely different matter when men are competitive bidders for a supply which is so short that many must go unsatisfied. Or, we may express the same idea by saying that a widely expanding demand for cheap wheat for feeding, which is bound to disappear with a slight rise in price, is not so significant to the grower or speculator as is the resistance which appears when the market supplies force men to bid against each other to the point where they must use substitutes to which they would prefer not to resort. At this point demand will tend to remain obstinately constant.

INVESTMENTS OF LIFE INSURANCE COMPANIES

S. S. HUEBNER, *Chairman*

The principal qualification of a chairman is brevity. I shall therefore be very brief in my introductory remarks.

After the lapse of several years, I am glad that insurance has again been favored with a round table conference assignment in the program of the American Economic Association. Insurance is entitled to such a position. It is an integral part of economics, just as much as the customarily recognized divisions of production, exchange, distribution, and consumption. Insurance deals with the important field of risk and risk bearing. Economic values are not only produced, exchanged, distributed, and consumed but they need also to be protected and, if need be, indemnified.

Insurance has many angles to it. But just now the one which seems uppermost in the minds of our people is the investment situation as it affects the standing of our insurance institutions, and particularly life insurance. It was probably with this thought in mind that the program of this round table conference is devoted to the specific topic of "Investments of Life Insurance Companies."

ROBERT RIEGEL.—Of the total assets of life insurance companies over 91 per cent consists of securities, mortgages, and policy loans. Securities rather consistently declined in importance as an investment from 1919 to 1929, while mortgages during the same period were increasing in significance. From 1929 to 1931, these tendencies were reversed, the relative interest in mortgages being reduced and security investments increased, and each now forms about 38 per cent of admitted assets. Policy loans were as high as 15 per cent of the admitted assets in 1914, fell with minor ups and downs to 12 per cent in 1928, and rose to 16 per cent in 1931.

Mortgage loans are commonly segregated into two groups, farm mortgages and other mortgages, the latter consisting mainly of city mortgages. The former have been diminishing since 1924, a tendency which persisted in 1930 and 1931. The explanation seems to lie partly in the movement of population toward the cities, partly in the facilities for farm loans afforded by federal and joint-stock land banks, and partly in the unfortunate agricultural situation. Other mortgages have been increasing since 1924 in importance, but declined in 1930 and 1931, probably because of general real estate conditions.

To say that policy loans reached their peak of importance in 1931 conveys an impression which is an exaggeration. While it is true that in modern times they never before reached 15.9 per cent of the assets, they were as high as 14.9 per cent in 1914 and have never since been lower than 11.9 per cent. Although these loans increased greatly during the depression of 1929-31, they are not primarily a phenomenon of the business disaster. Such a situation of course tends temporarily to increase loans, but fundamentally they are kept up around 12 and 13 per cent by the increased use of life insurance for business purposes, as a medium for saving, and as a reserve for contingencies.

. On policies of these kinds borrowing is more probable and more desirable than on policies primarily for dependents.

The significance of policy loans as an investment factor arises, not from their proportion to the total assets, but from their possible sudden drain on life insurance funds at an embarrassing moment. In 1929 it may be estimated that all companies were compelled to provide about \$148,000,000 additional for policy loans during the last ten weeks of the year. This is about 10 per cent more than the cash carried by the companies. The demand for cash, however, may be met out of funds ordinarily currently invested in other ways.

In the experience of twenty-nine companies it may be estimated that investments of all companies totaled \$1,900,000,000 in 1929 and averaged \$200,000,000 a week. This would have provided \$880,000,000 in ten weeks to meet loans of \$200,000,000. In one week ending November 2 the demand was particularly heavy, reaching probably \$84,000,000 for all companies. Policy loans for one or two other weeks in the period just about equaled the average weekly investments. Thus, while such loans in this period may have entailed a day-to-day problem in providing cash, they did not involve the sacrifice of securities or mortgages at reduced prices, and consequently did not present a serious investment problem for companies in general. This is not to say, however, that they may not create problems for a company other than the average.

The depressing effect of the increase in policy loans upon the normal growth of security and mortgage investments in 1929-31 is readily apparent in a comparison of the annual increases in these assets with increasing total assets.

In the security portfolios of life insurance companies, United States' government bonds have been of constantly diminishing importance for the past years, with a slight increase in 1931. Their yield, as compared with the yield on fifteen railroad bonds, has been less and less since 1926, which probably explains their decline in importance. The gain in 1931 was probably due to a temporary necessity for increased liquidity of assets. Canadian government bonds have shown little change in recent years.

Municipal bonds fell in importance from 1924 to 1928, rose in 1929, maintained their status in 1930, and rose again slightly in 1931. Railroad bonds have declined steadily in importance since 1924 and continued the decline in 1931. The explanation seems to lie in the diversion of funds to public utilities and industrials, partly because of the increasing financial difficulties of the railroads but also partly because of the increasing stability of public utilities, which provides an additional field for diversification. The explanation is not provided by the comparative yields on railroad and utility bonds. Investments in public utilities are now double their importance in 1924, and is also true of "other corporations," including industrials. One reason has been referred to above, but in addition, stock investments in these corporations have contributed to the gain. This brings us to the subject of life insurance companies' investments in stock.

Popular discussion of the theory of stock investments by life insurance

companies and the examples of a few companies have led to an exaggerated general conception of the importance of investments by life insurance companies in stocks generally and in common stocks particularly. These companies have always invested a small part of their funds in stock certificates, and the liberalization of the investment laws, such as the permission in New York to buy preferred and guaranteed stocks under restrictions, has caused a large percentage increase in stock investments. Nevertheless such investments are still an insignificant proportion of the total. In September, 1931, all stock investments comprised but 2.8 per cent of the assets of companies representing over 90 per cent of the total assets in the United States. On the same date common stock investments were an insignificant .5 per cent of admitted assets.

Furthermore, a comparison of the stock investments of companies classified as "large," "medium," and "small," according to their assets, shows that while the large companies have increased their stock holdings faster than the medium or small companies, they started from a lower percentage than the latter. Most of the increase, which still brings the total holdings to less than 3 per cent of the assets, was due to the purchase of preferred and guaranteed stocks. As to common stocks, among thirty-four companies operating in New York, large companies' holdings are less than .1 per cent of total assets and medium and small companies' holdings do not exceed 1.5 per cent of assets.

In 1930, out of \$1,400,000,000 invested by twenty-nine large companies, 7.7 per cent consisted of stock investments, and in 1931 to October 31 the percentage in stock for the same companies was 5.6 per cent.

S. H. NERLOVE.—A dogmatic answer to the question of whether life insurance companies should be permitted to buy common stocks is obviously impossible. Many of the factors involved cannot be measured and the answer must to a considerable extent be ultimately based on an opinion of what is going to happen to the security markets. Nevertheless, it is possible to indicate in a general way the direction which the answer should take (1) by analysing the recent trends in the investment portfolios of life companies and (2) by determining the dangers involved to an insurance company in buying common stocks for its portfolios.

The recent changes in the investment portfolios of life companies indicate that there is a need for a wider field of investment if life companies are to continue rendering their services at as low a price as they have been during the last decade. They are finding that farm mortgages are not meeting their requirements as well as they did and consequently have reduced their holdings of mortgages from approximately 18 per cent of their assets in 1924 to 12 per cent in 1929. This tendency in all probability will continue for some time in view of the agricultural outlook. The companies are also finding that the railroad bond field is narrowing. After the War they continued their policy, which was started in 1906, of investing every year a smaller portion of their assets than they did the year before in these securities. In 1921 they had 25 per cent of their admitted assets in these securities and by 1929 they had reduced the proportion to 18 per cent. This tendency probably will also con-

inue, in view of the railroad situation. To offset the declining proportion of heir assets in these two types of securities, the companies increased their holdings in urban real estate mortgages and in other bonds, particularly public utility bonds. Although urban real estate mortgages, especially where they are a claim not only on the property covered but also upon other assets and income of the property owners, are excellent investments for life companies, they are not likely to be as satisfactory during the coming decade as they have been, mainly because of the prospects for the building industry.

If the life companies begin to accumulate large quantities of high grade public utility or other bonds during the next decade, they are not likely to obtain a large enough yield to warrant their continuing their present rates for their services.

In the last two decades or so the investment position of common stocks has improved considerably. The establishment of large corporations with vast amounts of capital furnished primarily by stockholders has given common stocks a much superior investment position. In addition, the recent drastic stock market price declines have even put equity securities in a stronger position for long-term investment purposes.

Consequently the need of life companies for a wider field of investment securities might well be met by common stocks. The significant danger involved in purchasing common stocks for investment purposes as compared with other securities arises out of their widely fluctuating market values. These fluctuations are important only to those who are forced to sell their securities at some particular time. The average life company has seldom, if ever, been forced to make such sales.

The income of the average life company has outrun its expenditures. Excluding payments on policy loans and forfeiture values, which, of course, reduce the reserve liability, the total annual aggregate expenditures of all life companies have varied between 64 per cent and 72 per cent of total aggregate income between 1904 and 1930. In a representative sample of companies investigated the highest average ratio for the entire period for any one company was 80 per cent and the lowest 58 per cent. And at no time during this period did any company have a ratio of above 95 per cent in any one year. The average life company's premium income alone (total income less investment income) comes very close to covering its expenditures. The annual aggregate total expenditures of all companies have varied from 80 per cent to 101 per cent of the aggregate premium income for the same sixteen year period. In the sample studied, the highest average ratio of any one company for the sixteen year period was 111 per cent and the lowest 76 per cent. During occasional years, however, it was as high as 140 per cent.

Consequently, in view of (1) the investment trends of life companies, (2) the present and probable future investment environment, and (3) the strategic position of life carriers in regard to fluctuating security values, it seems as if the investment and valuation laws should be changed to allow life companies to invest a significant portion of their assets, say 15 per cent, in equity securities.

It should be noted, too, that equity securities have an advantage not yet con-

sidered. They will make it possible for life companies not only to meet dollar obligations but also to some extent to meet "purchasing-power" obligations. Although legally life companies have only dollar obligations to meet and actuarially it is impossible to devise a scheme that will adequately take care of the effects of the fluctuating value of the dollar, life companies, in view of their long-time contracts, should be given the opportunity to reduce to some extent the adverse effects of the downward changes in the value of the dollar.

M. C. RORRY.—The problem of combining adequate safeguards with adequate freedom for the investments of life insurance companies has assumed increasing importance with the growth of admitted assets of companies in the United States from less than \$3,000,000,000 in 1906 to probably well over \$20,000,000,000 at the end of 1981. This last figure represents, roughly, 5 per cent of the national wealth, and perhaps 20 per cent of the senior capital and obligations—bonds, mortgages, preferred stocks, etc.—at present generally available for the investment of the reserves of life insurance companies.

A very rough forecast of the future of life insurance indicates that, in twenty to twenty-five years more, the admitted assets of American companies may approach a limiting figure of 10 per cent of the national wealth, or at that time a total of, say, \$60,000,000,000 to \$75,000,000,000. Barring radical changes in business, industrial, public utility, and real estate financing, the life insurance companies might then find themselves absorbing nearly or quite 40 per cent of all available mortgages and senior securities. Under these circumstances, and with these prospects ahead of them, it is to be expected not only that the companies will from time to time attempt to tap new fields of senior securities, but that the question of legalizing common stock investments will be a recurring one.

If diversified common shares could be counted upon to yield, in the long run, from 9 per cent to 14 per cent on the investment, as some observers have claimed, the presumption might be in favor of granting rather liberal privileges to life insurance companies with respect to investments in common stocks. This presumption might be still stronger if we could accept without question the statistics quoted by Professor Nerlove to show the safety of principal when invested in common shares. However, a very extended study of common stock yields and appreciation indicates that the average yield, combining current dividends with normal gain in market value, is about 7 per cent. Furthermore, this 7 per cent figure does not allow for certain real, even if not directly measurable, elements of risk, in even the very best of common share investments, over and above the corresponding risk in high grade bonds. In addition, these same studies indicate that common share investments made in exceptional periods, such as that of September, 1929, may involve the certainty of heavy losses of principal.

On the whole, the basic argument against common stock investments for life insurance companies is the small increase in the average portfolio yield that could be obtained by permitting, say, 15 per cent of the portfolio to consist of common shares. Such increase, amounting to, perhaps, .2 or .3 per

cent, would not justify any measurable departure from that security which is the first essential of life insurance.

H. D. COREY.—The question of permitting life insurance companies to invest in common stocks hinges to some extent on the relative desirability of stocks versus other types of securities as long-term investments, both from the point of view of safety and of yield. The studies of E. L. Smith and other writers mentioned are inconclusive in that they do not take into consideration developments in the securities markets of the past two years. Generalizations on the basis of such studies are therefore unsafe, and offer at best only a partial foundation for deciding the real issue. In view of the fact, however, that suggested legislation is permissive, rather than mandatory, it seems not unreasonable to decide that such permission might well be granted. Investment departments of the respective companies are in the main well equipped and competent. Motivated by a self-interest which is in no way opposed to the interest of the policy holders they could doubtless be relied upon to determine the needs of their organization, and, if a reasonable amount of stock investments should be found desirable, there appears to be no good economic reason why such securities should not be allowed to occupy a place in their investment portfolios.

It is true, as Professor Nerlove points out, that stock prices will respond more readily to improved conditions than will bond prices. This in itself, however, is hardly an argument for stock investments as this very factor in favor of the stocks makes them equally undesirable when the movement is in the opposite direction, as it has been for the past two years. In all depressed periods stock prices sink more rapidly and to proportionately lower levels than do the prices of comparable bonds. For example the last high for industrial stocks, according to the Dow Jones average, was 881. The low was 78, a decrease of nearly 80 per cent. Percentage decreases of approximately the same amount occurred in the case of railroad and utility stocks. Bonds were of course affected more slowly and were subject to smaller variation.

But the essential problem has not yet been touched. Both papers have been highly informational concerning life insurance investments. The issue has been treated from various angles but the fundamental problem has perhaps been neglected. This whole investment problem might be restated in a slightly different form; namely, will our present economic system provide in the future an adequate long-time investment opportunity for capital funds, not only those of insurance companies but funds from other sources? In other words does the economic order under present conditions provide a means for accumulating the savings of youth for the necessities of old age, for this is the essential function of insurance companies. Possible primitive methods for providing for old age point out the nature of the problem which now confronts any institution having funds to invest. Our primitive man might have stored clothing and food stuffs, or he might have acquired goods which he could have permitted younger men to use for the making of commodities for the use of both. This crude illustration exemplifies precisely what is now done by those who entrust their savings to insurance companies. These savings of course take on the form of railroad locomotives, real estate improvements, and

other capital goods. The question at the present time is whether the near future will furnish sufficient demand for new capital goods to provide for the storing of these savings. Because of the present surplus of capital equipment and the arresting of the growth of population, with its consequent lessened demand for new capital equipment, a significant reduction in possible opportunities for savings funds must inevitably result. This decreasing growth of population, so important to our postulate, is well evidenced by recent census figures. It seems in view of these considerations that it may be desirable to open every reasonably safe channel to permit the investment of accumulated life insurance funds. Common stocks possibly constitute one of these channels.

J. LLOYD MAHONY.—One of the problems which might well be discussed is called to our attention by the increases in policy loans. It is a problem common to all financial institutions today—that of maintaining liquidity, and at the same time of keeping the money which is entrusted to them actively and profitably employed.

Life insurance, savings deposits, and building and loan accounts, in contrast with deposit accounts at commercial banks, are long-term propositions, fundamentally. Accordingly, the institutions which provide such accommodations may reasonably presume that the great bulk of money so deposited will be left with them over an extended period. Broad investment policies may be worked out under which these institutions proceed to put this money into such securities and other commitments as will represent the maximum of safety of principal and a satisfactory yield, without particular regard for the readiness with which such securities might be liquidated. Instead of this strictly long-term aspect, we find that these institutions are all designed so as to allow withdrawals at the depositor's convenience up to the full amount of the book value of the account.

While it is true that life insurance companies have been able to meet all requests for policy loans without any sacrifice selling of permanent investments, it would seem to me that much more definite and systematic plans should be worked out to care for the ever-increasing demands for cash withdrawals. I do feel that these long-term institutions should be protected at every turn from overindulgence of the cash withdrawal privilege on the part of policyholders. I believe that life companies should hold to the idea of a reasonable withdrawal notice and that some plan of limiting the amount which might be paid out either in the form of policy loans or surrender values should be adopted and enforced.

At any rate, Professor Riegel's findings are impressive enough to indicate that in policy loans there lies a problem, which, although it is not now considered to be particularly serious, might well grow into a very complicated one, with further increases. I hesitate to imagine the pandemonium which might reign in our great securities markets should it ever become necessary for life insurance companies to liquidate security holdings in order to raise cash with which to meet demands for it.

But beyond the problem of raising the cash there is the deep-seated one so forcibly indicated by Professor Riegel. The regular investment in securities

and mortgages and other permanent commitments is disturbed by the demands for policy loans. To be so forced to curtail the pursuit of a regular investment policy is indeed not healthful.

All of this resolves itself down into two conclusions. First, in order that policy loans may not be permitted to upset the permanent investment policy of the company, additional safeguards might well be thrown around their granting. Second, a greater percentage of the admitted assets should be carried in cash and other liquid assets to take care of demands for policy loans, thus allowing the permanent investing to go on uninterrupted. This, of course, will reduce the income return from investments somewhat, but such is the price policyholders will pay for the cash withdrawal privilege in their contracts of insurance.

DWIGHT C. ROSE.—I agree with Professor Nerlove that life insurance companies should be permitted to own a limited amount in common stocks with proper restrictions. I wish to emphasize, however, that since the legislatures of our various states have not yet demonstrated an ability to restrict the funds of life companies to safe bonds it is probable that the same type of restrictive legislation applied to stocks would be even less satisfactory. In common stocks we expect a higher mortality ratio of individual issues than we do in bonds. In bonds the loss on one issue cannot be made up by the gain on another, but this is precisely what does happen with common stocks. If, therefore, our legislators aim to apply sound principles of practical conservatism to common stocks, they should change their viewpoint from consideration of individual issues to average results from a diversified group.

Mortgages and bonds carried by life insurance companies have enabled them to present solvent balance sheets each year because these investments have been carried at cost or amortized values. At current market values for their investments practically all life companies are technically insolvent today and have been technically insolvent in a number of years since 1900.

While I recognize the soundness of carrying investments of life companies at arbitrary values because of the peculiar nature of their liabilities, I believe it is illogical to permit carrying bonds and mortgages at arbitrary values while insisting that stocks must be carried at the current market. An investment in a diversified group of industrial common stocks bought in 1901 would at the market values prevailing at the end of 1931 have increased very substantially in value; whereas investment in a diversified group of high grade bonds in 1901 would now be worth considerably less than the purchase price. There has been no period of ten years or more since 1901 when a diversified group of industrial stocks has sold lower at the end of the period than they had at the beginning; whereas there were many periods of ten years when high grade bonds have sold for less at the end than they had at the beginning of such a period.

I suggest that investment of life insurance companies in common stocks should be limited to 25 per cent of the company's total investments, that not more than 5 per cent of the amount so invested in common stocks should be invested in the stock of any one corporation, and that the total investment in any one corporation should not constitute more than 2 per cent of the out-

standing stock of that corporation. These investments should be restricted to corporations organized under the laws of the United States or of one of the several states whose stock is listed and regularly traded in on one or more of the major exchanges of the United States, whose total capitalization is at least \$20,000,000, whose annual net earnings for the seven years preceding purchase thereof shall have averaged at least twice the interest and dividend requirements on all bonds, debentures, and preferred stocks, and where the principal amount of all fixed obligations shall not in the aggregate exceed, in the case of public utility and railroad corporations 60 per cent, and in the case of all other corporations 40 per cent, of the corporation's total capitalization.

I further suggest that life insurance companies might be required to carry all investments in common stocks at 75 per cent of their cost, amortized to 100 per cent of cost gradually each year over a ten-year period. I believe that this would dissuade companies with an inadequate surplus from considering common stocks, would induce investment for yield and long-term results rather than for trading profits, and would provide an immediate cushion of 25 per cent against a decline in stock values. From a psychological standpoint it would be beneficial, since policyholders would recognize that their companies were carrying stocks below cost, and hence would not worry about the financial condition of the company's reserve in times of violent fluctuations.

REAL ESTATE IN THE BUSINESS CYCLE

R. T. ELX, *Chairman*

reporting the Round Table on the above topic, it was decided to submit : *Proceedings* an abstract of the paper presented by Dr. Richard T. hich he entitled "The Depression and the One Hundred and Fifty Year —EDITOR)

isely what do we mean by "depression"? We all know the manifesta- f the depression. We have been suffering and suffering keenly from its . When I ask, "What do we mean by 'depression'?" I have in mind an is of one or two causes of the depression.

economic life is one of human relations. This is where we must begin are to understand our economic life. More and more economists are ; to treat economics as a science and an art dealing with human rela- and with everything else subordinated to these relations. This concept, er, does not fully enter into economics ; otherwise, the explanations given existing situation would be clearer.

are prosperous when our relationships function easily and well, and i proportion as these cease to function easily and smoothly, we become oprosperous. When they are violently disturbed as they are now, we have read unemployment and poverty. War is the greatest of all disturbers mal economic relations, and is one of the most fundamental causes of sion. However, the depressions resulting from war very often come a erable period after the war.

me enlarge a little bit this idea that economics deals with relations ; men and should be developed from this point of view, making the ma- world of natural resources the foundation on which these relations rest. i consider some of the topics with which we deal in economics, for ex- , wages, profits, interest, debts of all kinds. What are they but relations ; men? The external world may remain as it is, but it is disturbance in relations that means poverty. When these relations again move freely oothly, then our wealth is increased.

us consider the farmer. The soil may remain just as it is, and he may he finest equipment in the world ; nevertheless, disturbed relations bring erty. If his farm is mortgaged too heavily, that is a relationship which ruin. If he sells on one price level and buys on another price level, it disturbs relationships. If his produce does not bring a profit, then the ants with whom he deals may fail and the failure brings ruin to bank-

us approach this from a somewhat different angle. John owns 900 shares r York Central stock and lives on the income of these shares. The income nd an infinite train of consequences follows. John may also put up his as collateral for a loan. The shares fall to 25 and the loan has more than the collateral. He must put up more collateral and to do so he has other property. Thus the depression goes on and on.

ie say we have all the land we ever had ; we have all our other natural

resources; we have all the buildings that we ever had, etc.; we must, therefore, be as rich as ever. We are not as rich as ever because material things are subordinate to human relations. We are poor, and a great deal poorer, than we were before the collapse that began in 1929.

The fundamental causes of our present distress in the United States have been strangely neglected in current discussions. These discussions concern themselves almost entirely with secondary rather than fundamental causes.

The causes are to be found first of all by researches in the field of land economics. Because we have had no satisfactory land policies for the utilization of land in city and country we have had wild fluctuations in land values. High land values have been followed by extremely low land values. We must seek the fundamental underlying causes of depression in land and what goes with land in its utilization. That is to say, improvements of every sort attached to land. This is the thesis which I present for discussion.

I have just mentioned the strange neglect of land and the movements of land values. Let me give an illustration. In 1929 there appeared a two volume work entitled *Recent Economic Changes in the United States*. It was a report by the committee on recent economic changes of the President's Conference on Unemployment and included the reports of the special staff of the National Bureau of Economic Research. One purpose of the report was by means of analysis of recent economic changes to lay a basis for forecasting our economic future. The men who prepared this report stand high and the two volumes are indispensable to the student of economics. Nevertheless, in these volumes there is scarcely more than references to the land and its utilization. But even now real estate, which simply means land utilized, includes considerably over one-half of the wealth of the United States. Moreover, it is precisely in the uses of land that perhaps the most momentous changes have occurred during the present century. Is it any wonder, then, that these able men were not able to forecast the future? Mr. Walter Lippman, in a remarkable article in the *Red Book* last year criticized severely these volumes because the various writers whose papers made up the volumes did not give us any forecast of coming troubles. At most a slight intimation can be found here and there of what was coming.

I am not sure that you all appreciate the harm that has been done to the economists in this country, either by absence of forecasting or what is still worse, by actual mistaken forecasting. Doubtless Honorable Frank A. Vanderlip, former president of the National City Bank, had in mind the mistakes made by those who have been working on the business cycle and forecasting the future value of securities when at a recent meeting of the Economic Club in New York, he derisively spoke of "economists formerly known as astrologers." An example of mistaken forecasting is given by one of the outstanding economists of the country, who assured us late in 1929 that the price of securities was not too high. On the contrary, he said, we were on a permanently higher price level. It is hard to overestimate the losses due to the situation that has just been briefly described.

We must begin with the land and from land and its uses go on to other economic activities and movements. This is my second thesis. The hard times be-

with the farmers late in 1920 and they have steadily become worse for farmers since that time. It is a question of supply and demand. For a long, long time without any satisfactory researches into supply and demand, public policies have encouraged the expansion of agriculture. As a matter of fact during our entire history policies have been such as to encourage expansion of agriculture. In November, 1981, a conference called by the United States Bureau of Agricultural Economics and the Land Grant Colleges was held in Chicago. This conference discussed land utilization and drew up recommendations for a national land policy. The recommendations made by this conference aim to limit agricultural expansion and to bring about a satisfactory relationship between supply and demand. This marks an epoch in our history which has received little attention as a turning point in American economic policies. From the beginning of our history, then, until 1981 America's land policies have been such as to encourage agricultural expansion without limit. I think that it is safe to say that English economic theory has in no small measure been responsible for this uncontrolled expansion and the plight of the farmer. English theory finds expression in what Malthus regarded as a fundamental law. I refer to what he calls "the law of demanders." He says that agriculture is peculiar because the demanders always so increase as to consume the entire product of agriculture, however large this may be. He went even further than this and said the growth of population would be so great as to produce a constant pressure upon the means of subsistence and also, in consequence, an increase in land values. This gives us one expression of the English law, the law of rent, as formulated by the English classical school. All the landowner has to do is simply to wait while the value of his land goes up and reaps an unearned increment. Strange it is that in this period of unearned increments people still hold to this old theory.

Professor Frank A. Fetter of Princeton University has said that it is unfortunate that in our universities and outside the universities we did not develop American economic theories. Henry Carey and others made a good beginning, but their work was looked upon askance by our academic economists led by those who controlled a large portion of the most influential periodicals. They taught that we did not go from better to poorer land; that values depended upon cost of reproduction and that the pressure of population on the means of subsistence became less rather than greater. There is so much chaff with the wheat in Carey's writings that what is most essential in them has been generally overlooked. Land values of the present time are in striking general harmony with the ideas of Carey and his associates rather than with those of English economists. Had we developed the economic theories of Carey and other early American economists into a system of economics which was an expression of American conditions, our land policies might have been better than they have been. We might at least in some measure have escaped the disasters which have resulted from following the theories of the English classical school which they developed under the influences of their own economic life and the conditions following the Napoleonic Wars.

Turning to the World War the policies of government were directed first and all to expansion of agriculture. This is natural enough under the circum-

stances. The area of agricultural land in cultivation underwent enormous expansion. Demand for agricultural products during the War rose enormously and the price at which land was held, sold, and mortgaged rose even more rapidly than was warranted by war prices of agricultural products. The position of the farmer has constantly grown worse since 1920. It has been a case of increasing supply and decreasing demand. The rate of population growth has become slower and slower and agricultural productivity during the decade has increased 50 per cent more rapidly than the growth of population. Prices of agricultural products have fallen and farm land values have gone down so rapidly that in very many cases land will not now sell for what was regarded as conservative first mortgages.

This is not a question of money. When I used to live in Madison, Wisconsin, I had a fine little fruit orchard on my small place. The production was so great that I made myself, I fear, a nuisance to my neighbors in trying to get rid of away plums and even apples at times. No manipulation of money, no extension of credit, will extend the capacities of our stomachs. What folly, slogans like "Eat more bread!" when we produce more wheat than can possibly be met by any effective demand!

Satisfactory land policies must be based upon an economic survey of the right uses of land, and when put into effect will mean that upon a basic classification, land that is adapted specially to forests may be put into forests, etc. Land that is good agricultural land should be used for agriculture. In determining what is agricultural land we must be governed by prices as the result of forecasts of demand. A great deal of land should lie idle so far as present production is concerned. I cannot go into this in this brief discussion.

As a result of the fall in land value banks in the rural sections of the country have failed by the thousands and in some sections nearly all have become bankrupt. The result of all this is the diminution of purchasing power on the part of the farmers and enormous losses that have resulted to others in their relations with the farmers. Think of what it would mean to the railways if the country, which in their present acute distress are a menace to all of them, if the farmers had been prosperous during the last ten years with the resulting increase in their passenger, but especially freight, revenues.

Let us turn to urban land. Precisely that has been happening in urban areas which has happened in the case of the farm land. The same results have followed. We need smaller and smaller areas of land in the cities in proportion to the population. The rate of population growth has been slowing up although cities have grown at the expense of the rural sections the area of land needed has constantly undergone a relative decrease. New York City offers striking illustrations. When it comes to housing, we have the London Terrace Apartment Building in New York City on 28th Street between Ninth and Tenth Avenues. It is said that on this one block five thousand people are housed; whereas, when this was a part of the formerly attractive Chelsea district and single family houses were on this block, it housed four hundred people. In other words, only one-twelfth of the land area per capita is demanded under these conditions.

Turning to the office building, we have an equally striking illustration

It has been happening in the Empire State Building. It occupies some-
t over 88,000 square feet of land, or a little less than two acres. Probably,
r conditions of construction as they existed forty years ago it would have
n ten times that area of land to furnish an equally satisfactory amount
fice space. The result of what has happened is that city banks have been
g j ust as the rural banks began failing several years ago. Distress has
ad f rom class to class.

Placing land to its right uses is taking the first big step in establishing the
dations of continuous, permanent prosperity. It is not by any means all
needs to be done, but it seems to me that this is where we should make a
nning. Doing this, we are putting ourselves in line with the forces al-
ly in operation in this country. The state of Michigan some eight or ten
rs ago began an economic survey of the land of that state not including,
wer, urban land. In the state of Wisconsin a good beginning has been
ade by the Agricultural College and other state agencies. Especially, would I
commend the researches of Dr. George S. Wehrwein, professor in the Agricul-
tural College at the University of Wisconsin. In New York State, Governor
Franklin D. Roosevelt deserves commendation because he is working along
the right lines in finding out the proper uses for land and putting land into
these uses. The adoption of a constitutional amendment by the state of New
York in November of this year makes it possible for the state of New York
to take out of agricultural use land that has been submarginal for agriculture
and to put it into the production of trees as a regular crop. The decisive
vote for this constitutional amendment is a triumph for sound ideas.

Urban land economics has been strangely neglected in our country, but a
good beginning has been made in the development of urban land economics.
Practice is also following theory, and zoning laws and deed restrictions are
steps precisely in the right direction. It is unfortunate that these movements
are so extremely slow. If ten years ago they had been vigorously pushed by the
United States government, our states and our cities, if we had put into them
one-tenth of the energy that we have put into mistaken policies in trying to
control the prices of agricultural products directly instead of indirectly by
sound land policies, and if we had put into the promotion of land policies half
the money and energy that we have put into measures that have not helped at
all, we might be much further along at the present time.

In putting land to its right uses, we are also acting in harmony with what
has been done elsewhere successfully to increase prosperity; for example, in
Ireland and in Germany. Such prosperity as Ireland enjoys is largely a result
of her land policies which are, in general, in line with my recommendations.
What Stein and Hardenberg did early in the nineteenth century was an out-
standing contribution to the prosperity that Prussia enjoyed for a hundred
years. Prosperity depends primarily upon proportionality in production. Evo-
lution is continuous and it is bound to advance beyond policies. But we should
endeavor to bring our policies as rapidly as possible into harmony with the
stage of economic evolution that we reach from time to time.

Recovery from depressions is, first of all, a result of the transfer of labor
and capital where they exist in excess of proportionality into new lines of

activity so that they may satisfy economic wants, new and old. Ever since the industrial revolution in England in the latter part of the eighteenth century, we have had periods like the present when there has been disproportionate production. England followed the *laissez faire* policy and the result was chapters in English economic history of great wretchedness which are a disgrace to England. In the course of time, however, an adjustment took place after endless suffering described in many treatises on economic history. It is beyond the power of the individual to make transfers of labor and capital quickly into new fields where new wants are satisfied. If we follow a *laissez faire* policy, transfers are gradually made with endless suffering in a variety of ways. New occupations spring up and give employment to vast numbers. If we study the census reports of occupations, we find how they increase and afford employment. Changes in old economic activities increase employment in the long run and as a general rule. The case of the stage coach and the railways has often been mentioned. Printing took away the occupation of a great many scribes, but has added probably a thousandfold to the number engaged in making books. We come to this old idea of the long run, but we remember that life is only a short run. A great problem, then, is making quickly enough transfers of labor and capital for human beings whose life is only a short run. The only measure that I know that is adequate to meet this situation is the establishment of a peace time army which I have described elsewhere.

I will say just a few words in this paper about the peace time army. We should have a permanent peace time army of, say, 25,000 people and at the head of this army there should be a general economic staff. This peace time army would work systematically in the noncompetitive field doing useful things to satisfy real wants. There is no limit to the things that can be done in the noncompetitive field in improving what we may call the "common wealth," the wealth of us all: reforestation, maintenance of fire lanes in our forests, cleaning up the banks of streams which supply us with water, planting these banks with trees thereby making them beautiful parks of recreation and at the same time producing valuable products. Roadside beautification would employ a great many men and at the present time something is being done in this direction to relieve unemployment.

A great deal may be done in the way of promotion of public health; for example, we have very few convalescent homes. One of the most important things of all is the separation of grade crossings which would prevent the destruction of life and property, a destruction which is now appalling. The railways *can*, in no possibility, do all that needs to be done. I would take this separation of grade crossings out of the field of private industry and make it a public function. And it is not necessary to give statistics to show that this would take up all the capital and labor that could possibly be devoted to this improvement and would do so for more than a generation.

The peace time army would be so organized that it could be expanded indefinitely. Whenever a depression occurs, this would take care of the immediate situation and in the meantime labor and capital would be finding new occupations. The pay of those in the peace time army apart from the standing army would be somewhat like that of soldiers during the World War, with provi-

sions for families, etc. The general staff of the peace time army would know the qualifications of those in the army and be ready to assist in the transfer back to industry of the soldiers in the peace time army as adjustments were made by labor and capital. Suppose, for example, there should be a return of prosperity and the United States Steel Company should have need of 10,000 employees of various sorts; they could turn at once to the general staff and workers could be sent to Pittsburgh or Chicago or wherever else they might be needed. This is adequate to meet the situation and would involve less expense and distress than we are now undergoing in keeping alive the unemployed. They must be kept alive, anyway, and we would have a regular, systematic means of doing this at a minimum expense. At the same time along with the relief they would be making an economic return for what they receive.

If we are wise in the use of land for forests, we must make our plans for a period of one hundred and fifty years. I have called my paper "The Depression and the One Hundred and Fifty Year Plan." Is it already clear why I say "The One Hundred and Fifty Year Plan"? And, indeed, Mr. von Bethman Hollweg, son of the old chancellor, told me a few years ago that on his estate of about five thousand acres not far from Berlin, he had a variety of oaks which grow for two hundred and fifty years; in other words, a two hundred and fifty year rotation. He harvests a crop of these oaks once in two hundred and fifty years. There are many other cases where land utilization should be planned out for one hundred and fifty years and even for more than one hundred and fifty years. In the case of the urban uses of land, policies should extend over centuries. It is going to take more than one hundred and fifty years to carry out the plans which were made by George Washington and his associates for the city of Washington.

I have called attention, to be sure very briefly, to five things which I have outlined in the plan to deal with depressions; namely, (1) to relative oversupply of land in city and country; (2) to the inevitably resulting fall in prices; (3) to the great losses of those who have utilized the land under conditions of oversupply; (4) to the resulting diminution in purchasing power of land utilizers both in the city and in the country; (5) to the quickening of the process of transfers of labor and capital from old to new fields and to do so especially by the creation of a peace time army.

This plan could not prevent depressions on account of the fact already mentioned that policies have necessarily lagged behind our economic evolution. The right uses of land will do something to lessen the number of depressions, but especially will it do a great deal to lessen the severity of them when they do come. Moreover, in the peace time army that I have described provision is made whereby it is possible to carry on during periods of depression until, through various readjustments, normal conditions once more prevail.

Dr. Ely's paper was followed by discussions by John R. Rigglesman, Professor Ernest M. Fisher, Dr. W. C. Clark, and James S. Taylor.

SESSION ON INVESTMENTS AND NATIONAL POLICY OF THE UNITED STATES IN LATIN AMERICA

PAPER BY MAX WINKLER
College of the City of New York

Almost two generations ago, an Englishman holding bonds of the state of Pennsylvania addressed a letter¹ to the House of Congress at Washington, part of which reads as follows:

Your petitioner lent to the state of Pennsylvania a sum of money for the purpose of some public improvements. The amount, though small, is to him important and is a saving from a life income, made with difficulty and privation. If their refusal to pay (from which a very large number of English families are suffering) had been the result of war, produced by the unjust aggression of powerful enemies; if it had arisen from civil discord; if it had proceeded from an improvident application of means in the first years of self-government; if it were the act of a poor state struggling against the barrenness of nature, every friend of America would have been contented to wait for better times; but the fraud is committed in profound peace, by Pennsylvania, the richest state in the Union, after the wise investment of the borrowed money in roads and canals of which the repudiators are every day reaping the advantage. . . .

Needless to add that in the years which have elapsed since this memorable epistle was written, Pennsylvania has paid her just debts, and history has willingly forgiven the state's youthful sins.

American investors in the obligations of Pennsylvania will hardly incline to recall the state's attitude toward her foreign creditors more than half a century ago. Why then are American investors in the obligations and enterprises of the republics south of the Rio Grande constantly reminded of the past defaults and repudiations by these countries, without being told of the circumstances under which foreign loans were contracted, which, in many instances, were such as to render default inevitable?

Apparently, the American investing public is easily pleased. It is, as a rule, treated to half truths at best. It rarely, if ever, hears the *altera pars*. When gentlemen in the House or the Senate rise in protest against American foreign investments, they point to the dangers incident upon entangling alliances with foreign nations. They refer us to Jefferson, who stated that "we have a perfect horror at everything like connecting ourselves with the politics of Europe," and who summarized the essential principles of our government, including among them "peace, commerce and honest friendship with all nations, entangling alliances with none."

We are, however, not reminded of the fact that, during the War of Independence, our government not only made a military alliance with France, but was prepared and willing to enter into every other European connection which would aid in the struggle. Nor are we reminded of the views expressed by George Washington to the effect that "when our institutions [become] firmly consolidated and working with complete suc-

¹ *Annals of the American Academy of Political and Social Science*, Vol. CXXXVIII (July, 1928), p. 4.

cess, we might safely and perhaps beneficially take part in the consultations held by foreign states for the advantage of the nations."

It appears that our ventures into foreign lands were effected in accordance with the advice handed down by the Father of our Country. In other words, our investments abroad did not commence until our own institutions had become firmly consolidated and were working with complete success.

Latin America appeared a logical field for the placement of American capital. Half a century ago, our total stake in the countries south of the Rio Grande barely exceeded \$50,000,000. At the outbreak of the European war, our investments in Latin America had reached \$1,800,000,000, or almost four times as much as our European investments, which were estimated at \$350,000,000. At the beginning of the current year, American investments in Latin America totaled \$5,705,601,000, or slightly in excess of our stake in Europe.

Has the United States grown poorer as a result of the placement of such relatively huge funds abroad? Has America's standard of living been lowered as a result of our having been transformed from a debtor nation only a decade and a half ago to one of the world's most powerful creditor nations? Is it not within reason to assume that the impressive growth in our commerce with our southern neighbors is directly attributable to our investments in those countries?

Few probably realize that for every increase of \$1,000.00 in our investments in Latin America during the past decade and a half, our commerce with our neighbors increased \$140.49; while our trade with Europe during the period 1918-30 registered a gain of only \$72.67 for every \$1,000.00 increase in America's investments in the old continent.

These figures would seem to demonstrate the underlying causes for America's economic penetration of her southern neighbors. It is obvious that we did not make our investments largely in order to make it possible for our soldiers, our bankers and oil barons to rule Latin America, as stated² by a rather prominent American historian versed in Central and South American affairs.

Although both interest and expedience dictate that Latin America should rank first as an investment field for America's surplus funds, extreme discrimination must be exercised in the granting of credits, and precise stipulations made regarding the purpose to which they shall be put. Lenders who ignore or do not heed sufficiently these cardinal principles, are conferring no benefits upon the borrowers. On the contrary, they are definitely aggravating their difficulties without securing for themselves corresponding compensation, except perhaps the transitory joy which resides in monetary rewards.

² S. G. Inman, *Atlantic Monthly*, July, 1924.

Our experience as a lending power, brief though it is, is replete with instances which clearly demonstrate that many a credit, granted regardless of the manner in which the proceeds were expended, turned into a discredit to ourselves, without in any way benefiting the borrower, except perhaps some unscrupulous public official.

To a considerable part of Latin America, we were still somewhat of a myth as recently as 1906, when Elihu Root told our neighbors, "We wish for no victories but those of peace; for no territory except our own; for no sovereignty except the sovereignty over ourselves."

During and after the war, our friends south of the Rio Grande discovered that the *Norte Americano* was no longer a myth. He consumed large quantities of coffee and sugar and bananas; of tin and nitrate and manganese. He supplied ingenious farming devices and cheap automobiles which did as good service as expensive cars from Europe. But he was not popular because his ways differed from all precedents, and he was suspected of contempt for those whom he arrogantly termed "Latin Americans."

Then was born a wonderful new era—*Aurea prima sata est aetas*—an era in which millions of dollars, tens and hundreds of millions, were offered to the governments and industries of the southern republics by the same incomprehensible *Norte Americano*, who, not so many years back, would bicker over ninety days' credit on a hundred dollars' worth of merchandise. In typical American fashion, we aimed at achieving overnight what it has taken our European friends decades to accomplish. It seemed as if we had set as our goal the creation of a record as regards the investment of capital in South and Central America. The desirability of such investments was rarely questioned, the principal object, on many occasions, being the extent of the underwriters' profit.

The consequences of such policies did not concern us. That they did not concern many of the politicians in the borrowing countries should occasion no surprise. These always regard their position as ephemeral. They live for the day. Their philosophy of life is *carpe diem*, enunciated by Horace two thousand years ago. They can live only by yielding to the multiple undertaking of expenditures, proposed by themselves and their temporary adherents, who violate with silent complicity the weak sense of decency, and exchange favors by the misuse of the public treasury. In order to enjoy the present, they cheerfully mortgage the future, and in order to win the favor of the voter, they launch costly and often sterile public works, which exceed the taxable possibilities of the country.

Après moi le deluge, said a King of France who saw a flood coming—which, to use the words of Luzzatti, was a necessary catastrophe as an atonement for all the ignominy which the monarchy had produced. *Après moi le deluge*, said many a South American executive, and the flood they

ked, occasionally with the aid of North American bankers, came bankruptcy and default. Realizing that their days were numbered, as almost invariably been the case of Latin American despots, they opriated public money without restraint, either of decency or parsism. When subsidies were requested, they were readily made, and who furnished the funds rarely cared to inquire into their use.

long as the golden stream was flowing in, respect and gratitude filled hearts of Argentineans and Brazilians, Chileans and Peruvians, Bolivians and Colombians and Uruguayans, for the manifestation of good will and confidence on the part of the United States. Thousands of young men from those countries came here to learn our language and commercial methods. Our engineers and business experts journeyed south by invitation. Presidents of the United States exchanged visits with the presidents of these republics. Good relations and mutual confidence became firmly established.

America's leadership in the field of international finance was undisputed. Americanization and American methods were the goal of every man across the Atlantic and south of the Rio Grande. The United States abounded in experts in practically every field of endeavor and was almost times ready to "lend" those American wizards of economics and finance to whomever was anxious to borrow them. Of course, each time an expert was dispatched to a foreign land, the American investing public had to be prepared for a loan to that country. The expert's advice was invariably followed or accompanied by the flotation of issues on behalf of the nations whom he had been called upon to advise.

Each state of blissfulness obtained as long as American bankers were willing to underwrite foreign issues or, rather, as long as the American investing public was willing to absorb them.

Then, suddenly and without warning, the fountain of credit dried up. The New York foreign bond market, expensively organized through years of educational campaigns, collapsed. Underwriting houses, investment corporations, and foreign bond brokers, abandoned their bond departments, in order to devote all of their time to a stock market orgy which lasted seventeen months.

Latin America was bewildered by this changed situation, which New York bankers were finding difficult to explain. Relations were still good, but there was an undercurrent of resentment, particularly on the part of governments with unfinished roads and public works for which funds were already promised, subject to market conditions. It cannot be said that there is good understanding when one of the parties does not understand. Unemployment set in. Demand for native products decreased. Governments were found wanting because they could no longer keep promises. Contentment grew, and so did the desire to change conditions through

revolutions—a method which, on the whole, had lain dormant for decades. It was discovered, however, that a mere change in government cannot alter appreciably the price of copper and tin, of silver and nitrate, of coffee and sugar. The governmental treasuries were empty; trade was falling; reserve ratios dwindled; and the inevitable happened—suspension of payment on contractual obligations.

The age-old theory was revised: South and Central American countries have little, if any, regard for the rights and privileges of creditors. Nothing can be further from the truth. Integrity and honesty are not the sole property of certain nations. Our southern neighbors are inherently as honest as our Anglo-Saxon cousins, or our Far Eastern friends. The fault is at least as much the lender's as it is the borrower's.

To begin with, we almost went out of our way to finance Latin American projects. No loan was turned down so long as we felt that it would be absorbed by the American investing public. It is indeed amazing to find that, in spite of the unparalleled demand for foreign issues during the period 1924-29, not a single loan was sold to the American public on behalf of a non-existent foreign government. Any one familiar with the state of our bond market at that time knows how easy it would have been to place successfully even bonds of such category.

The result was that nations were permitted to accumulate a debt far beyond their capacity to meet. Many of our bankers, relatively new to the field, had cultivated a peculiar idea about Latin America. They were inclined to look upon financial transactions with most of our neighbors as hazardous and, consequently, decided to have the supposed risk offset by the onerous terms imposed. In this connection, it may be of interest to quote from a statement made by one of South America's most distinguished statesmen, Doctor Augustin Edwards of Santiago, agent for the sale to an American group of a Bolivian loan. "Loans," said Doctor Edwards, "are made to countries in which the financial and economic condition and the governments offer reasonable guarantee of repayment. Capitalists are not obliged to extend credit to those who do not offer such guarantees. But, beyond this, it is not safe to go." American bankers did go beyond this and it has proved distinctly unsafe, not so much for them as for those of the American investing public who had been prevailed upon to purchase those bonds.

The default on the part of South American republics, regardless of who may be responsible, has doubtless dealt a severe blow to the credit standing of these countries in the financial markets of the world. Fear on the part of investors, due largely to paucity of information, in the countries which have not as yet defaulted might emulate their neighbors and has aggravated an already complicated problem. It is for these and similar reasons that we often encounter the most unusual spectacle

South American issues, the service on which continues to be met, at prices which are not appreciably above the coupons which they

We witness third lien bonds selling substantially in excess of first issues; and bonds with higher interest rates selling considerably below issues with lower rates, *ceteris paribus*.

Such is the irretrievable penalty a nation is obliged to pay for the collapse of its credit. And, since credit is one of the underlying factors in a nation's commerce, the trade of the country in question with its neighbors suffers considerably.

Even in 1930, which was admittedly one of the most trying years in the economic history of Latin America, our total commerce with our southern neighbors showed a gain over the 1913 figures of more than 73 per cent, which compares with a gain in our own total trade over the pre-war figure of about 63.5 per cent.

Careful and unprejudiced analysis of our relations with our southern neighbors reveals that the United States banker was not always extending himself for purely selfish reasons, or because he was anxious to further an imperialistic scheme evolved to subjugate all of Latin America.

The United States banker and business man are fully cognizant of the significance which Latin America, with its 110,000,000 people, has for our own country. Although, culturally, Europe has meant and might possibly continue to mean more to us, commercially, Latin America has assumed greater prominence.

Within the past fifty years, our trade with Latin America has increased almost seven times; whereas our trade with Europe has, in the same period, advanced less than three and one-half times. Moreover, our commerce with Latin America has shown an even more impressive growth than the total trade of the United States, which increased slightly more than three times during the period 1880-1930.

Many are the disappointments to which our bankers, and investors in Latin American countries have been subjected, and even more numerous are the disappointments of American holders of Latin American securities. But large, too, is the number of mistakes which have characterized the past our foreign loan policy in general, and our Latin American policy in particular, and for which the irretrievable penalty is now exacted in the form of defaults and suspensions of payment.

Nevertheless, the importance of Latin America to the United States future market for our manufactured goods, cannot be disputed. Why, then, not, therefore, concentrate our efforts to the end that our commerce with Latin America, amounting to \$1,600,000,000 yearly, be at least maintained, and that it be not lost to us at a time when we most need it?

With approximately \$6,000,000,000 of American capital invested in

Latin American securities and enterprises, it is no longer a question of whether such investments should or should not have been made. The question is by \$6,000,000,000 too late. We are in Latin America to such an extent and it is incumbent upon us, or those of us who are charged with the guidance of the economic policies of the American people, to see that adequate protection is given to what has already been staked in

U. S. INVESTMENTS IN LATIN AMERICA¹
(As of January 1, 1931)

	Direct investments	Portfolio investments*	Total investments
Argentina.....	\$ 353,369,000	\$ 517,800,800	\$ 871,169,800
Bolivia.....	61,619,000	61,104,000	122,723,000
Brazil.....	222,498,000	401,424,000	623,922,000
Chile.....	295,735,000	311,367,000	607,102,000
Colombia.....	123,994,000	184,402,800	308,396,800
Ecuador.....	11,777,000	10,726,000	22,503,000
Paraguay.....	12,615,000	150,000	12,765,000
Peru.....	126,530,250	102,881,000	229,411,250
Uruguay.....	27,904,000	81,977,300	109,881,300
Venezuela.....	240,808,850	.....	240,808,850
Total South America.....	\$1,476,850,900	\$1,671,832,900	\$3,148,683,800
Costa Rica.....	\$ 22,166,000	\$ 9,400,000	\$ 31,566,000
Guatemala.....	69,979,000	4,775,000	74,754,000
Honduras.....	71,485,000	1,250,000	72,735,000
Nicaragua.....	13,002,000	1,646,700	14,648,700
Salvador.....	29,466,000	14,530,300	43,996,300
Panama.....	28,584,000	19,866,000	48,450,000
Cuba.....	1,014,444,500	206,320,500	1,220,765,000
Haiti.....	14,191,000	16,015,000	30,206,000
Mexico.....	725,045,900	145,796,300	870,842,200
Dominican Republic.....	69,322,000	19,684,000	89,006,000
Miscellaneous Latin America†.....	60,000,000	.....	60,000,000
Total.....	\$2,117,683,400	\$ 439,283,800	\$2,556,967,200
GRAND TOTAL.....	\$3,594,534,300	\$2,111,116,700	\$5,705,651,000

* Includes internal bonds.

† Includes the Guianas, Jamaica, and other West Indies.

¹ The estimates of American investments in Latin America have been prepared by the writer.

The reasons for the discrepancy between these figures and those presented by the Department of Commerce are presented in a special study on "A New Estimate of American Investments Abroad" prepared by the Department. These reasons include, among others, the elimination by the Department of American investments in obligations of the Mexican Government, its various political subdivisions, as well as Mexican railways, advancing as a reason for the elimination the prevailing low value of Mexican securities and the resultant difficulty to determine their true value.

It is obviously difficult to subscribe unqualifiedly to such arguments. After all, the investment of American capital cannot be determined on the basis of the liquidation value at the time the computation is made, but must be based upon the actual value of the investment in any given situation. If market values are chosen, it will become necessary to revise American capital investments abroad every time the quotation of the foreign securities held in this country will undergo changes.

ca, and that proper care is exercised in whatever investments we make in the future.

s could best be accomplished through an unbiased and impartial r, whose activities would be directed by men of experience in in-
tional affairs and of sufficiently high standing to command the re-
of the community. And, while it is true that such an agency might
ime to time find itself opposed to interests anxious to finance Latin
can or foreign projects in general, largely because of the profits

UNITED STATES—LATIN AMERICA TRADE AND INVESTMENTS*

	1890 1913 1930 (In millions of dollars)			Increase Over 1st Over Period 1913	
S. exports.....	677	2,484	3,843	467.65	54.71
to Europe.....	562	1,500	1,838	227.04	22.53
% of total.....	83.01	60.38	47.82	....	....
to Latin America.....	58	361	680	1,072.41	86.70
% of total.....	8.57	14.53	17.69	....	....
S. imports.....	493	1,739	3,061	520.89	76.02
from Europe.....	248	865	909	266.53	4.04
% of total.....	50.30	49.75	29.70	....	....
from Latin America....	155	481	781	405.87	62.37
% of total.....	31.44	27.66	25.51	....	....
S. trade.....	1,170	4,223	6,904	490.08	63.48
with Europe.....	810	2,365	2,747	239.13	16.15
% of total.....	69.23	56.00	39.79	....	....
with Latin America.....	213	842	1,461	585.91	73.51
% of total.....	18.21	19.94	21.16	....	....
S. investments abroad..	200	2,625	17,523	8,664.00	627.50
in Europe.....	120	350	5,607	4,572.50	1,502.00
% of total.....	60.00	13.33	31.98	....	....
in Latin America....	50	1,300	5,706	11,312.00	338.92
% of total.....	25.00	49.52	32.55	....	....

*The figures represent annual average for period preceding 1890.

ing from such undertaking, it could to advantage adopt as its
the Latin words, *Oderint, dum mutant* (let them dislike us, as
they respect us).

PAPER BY W. W. CUMBERLAND
Wellington and Company, New York City

To confine discussion within workable limits, investments of the United States in Latin America will merely be summarized, and policies of the United States and its citizens, so far as they impinge on those investments, will receive principal attention.¹

There are, of course, no exact computations of American investments in Latin America. All so-called statistics are estimates. Probably as accurate a guess as may be offered is that slightly less than six billion dollars of American capital have gone to Latin America. Great Britain has furnished approximately an equal amount. These two countries are believed to account for about three-fourths of total foreign capital in Latin America.

Imperialism for its own sake and dollar diplomacy in defense of the Panama Canal have frequently been put forward as motives for the rapid growth of financial power by the United States in Latin America. Large amounts of capital do not go into a given country because a certain secretary of state has aspirations toward greater political influence in the country nor do American dollars concern themselves with strategic considerations involved in the Panama Canal. However, when treaties exist as between the United States and Cuba, the flow of capital is influenced and more American capital was undoubtedly embarked in Cuba than if treaty relationship had been in effect.

American investments take two principal forms: (a) loans to central, provincial, and municipal governments, which have amounted to about \$2,500,000,000; and (b) direct investments in agricultural, mining, manufacturing, and commercial enterprises, in which \$3,500,000,000 has been committed to Latin American policies. In sequence after Mexico and Cuba, Chile has been committed.

By the close of 1929 about \$2,800,000,000 of American capital had been sent to South America and \$3,800,000,000 to Mexico, Central America, and the West Indies. In order of importance, it is found that approximately \$1,500,000,000 had been invested in Mexico, with an equivalent amount in Cuba. Therefore these two countries had absorbed more than half of our total Latin American investments. This in large part explains the prominence of these countries in connection with Argentina, Brazil, Chile, Colombia, Venezuela, Peru, and Bolivia, in that order, as important locations of American investments. Commitments in these countries range from \$600,000,000 to \$185,000,000. A point to

¹ Few generalizations are applicable to all sections of the United States. This is even more true of Latin America, for the diversity of race, geography, social organization, and economic circumstances is so striking that differences are frequently more important than similarities. Yet the term "Latin America" will have to be utilized, while recognizing that it has inherent defects.

should be noted is that American financial interests in the Caribbean are of minor importance, except in the case of Mexico and Cuba.

Classification of direct investments, as contrasted with loans to governments, shows that mining and smelting take first place with nominal value of more than \$700,000,000; second comes sugar with some \$650,000,000; transportation and communications involve almost \$600,000,000; and petroleum producing and refining follow with more than \$500,000,000. Direct investments have been made by approximately 1,200 American organizations.

These direct investments are distributed geographically as follows:

Cuba and the West Indies.....	\$1,054,000,000
Mexico and Central America.....	917,000,000
South America.....	1,548,000,000

Cuba leads with \$919,000,000, followed by Mexico with \$683,000,000.

What the value of the six billion dollar American investment in Latin America may be at the present time cannot be determined mathematically, but bonds of most central governments, provinces, and municipalities are now selling on a basis of actual or probable default; sugar, mining, and oil companies are operating at a deficit or at unsatisfactory margins of profit, with corresponding prices for their securities; losses of both capital and income in connection with the National Railways of Mexico and the Mexican activities of the Southern Pacific Railway Company require no elaboration. Certainly American investments in Latin America could not be sold for thirty-three cents on each dollar; probably twenty-five cents is an adequate estimate.

From the point of view of investment technique, moreover, our financial commitments in Latin America represent obtuseness rather than astuteness. Loans to governments, which should carry a high degree of safety, have involved almost as much loss to the investor as commercial commitments and afford no opportunity for business profits. Although short memories are characteristic of the financial community, sales of Latin American securities in the United States will probably remain negligible until business revival again causes pressure on the outlet for capital funds. This is well illustrated by the fact that during 1931 to date Latin American loans floated in the United States amounted to only \$2,000,000, as compared with \$410,000,000 in 1930.

Perhaps the clearest concept of what has recently occurred in Latin America may be had from a comparison with events in the United States around 1837. At that time great enthusiasm was aroused for the building of highways, canals, and railroads, and for the establishment of banks and commercial enterprises. Imagination far outstripped organization. Improvements which would have been valuable if economically constructed were not correlated with financial capacity of the population nor with the

business structure available for their operation. Hence capital, which was embarked as freely for those times as has recently been the case with American capital seeking foreign investments, was in large measure lost.

While Latin America is comparatively undeveloped, it does not follow that practically unlimited amounts of capital can be absorbed within a short time and yield satisfactory interest. Even the principal may be jeopardized. This point of view is emphasized by recalling that Latin America can hardly be considered as an area of frontier development, as was the case in the United States between the War of 1812 and the Civil War. Many of the settlements of Latin America antedate those in the United States. If the aggregate of conditions warranted economic growth comparable to that in the United States, such growth would not have been largely absent until the United States happened to have surplus capital and foreign investments became fashionable.

If the natural resources of Latin America possessed the commercial value which loan prospectuses were accustomed to portray, they would have been at least partially developed by private capital, either local or foreign, and loans to governments for their utilization would have been unnecessary. Suspicion rather than confidence should have been created because governments were attempting to borrow for projects which private capital had found unattractive. Admitting that postponement of many projects would have occurred if the government had not interfered, events have demonstrated that such projects were premature in the sense that they could not support the capital charges for their development.

Why did American underwriting houses bring out hundreds of millions of dollars of Latin American securities which are now in distress; why did the American public buy these securities; why did Latin American governments overborrow; why did American business men make direct investments in Latin America upon which enormous losses have been incurred? No simple formula can be suggested in answer to such queries. These phenomena were part of the war and post-war hysteria which appeared in almost every direction and should therefore be considered from the chastened point of view of profiting from painful experience rather than from that of attempting to discover scapegoats.

In their importunate zeal to purchase bonds of all categories of Latin American political divisions, American financial houses were by no means guiltless. Many of them were represented by incompetent agents, with little experience in financial matters of any kind and with casual knowledge or none at all of Latin American conditions. These agents were unfitted to act in a responsible fiduciary capacity for determining the channels into which American savings should flow.

A few of the most obvious shortcomings of underwriting houses will

mentioned. In some instances a true picture of the budgets of the borrowing countries was obscured in bankers' prospectuses. This was made possible by misleading accounting methods which were in use by several Latin American governments, and which were often well known to the bankers concerned with the loans but not explained to bond buyers. Examples of incorrect accounting include extraordinary and special budgets, frequently containing items which should appear in the ordinary budget and thus indicating a spurious balance in the regular budget, periods of liquidation and various other devices by which the true financial position of the government was not revealed. Loans were also made in countries in which the currency was either precarious or worse. As an illustration, a study of the currency record of Brazil for a century is instructive. From a parity which may be designated as 100 in 1821, the parity had been changed four times by 1931 and now stands at 12 per cent of the original figure, with actual exchange some 47 per cent below nominal value. Probably no loan is justified to a government which has been unable to maintain its currency within reasonable limits of stability.

In certain cases the debt record of political entities whose bonds were to be distributed has not been correctly stated; in others, population, natural resources, or economic conditions have been distorted; in others, loans have been announced as being for productive purposes and the proceeds promptly squandered in armaments or otherwise frittered away; in others, secret commissions to political favorites have been allowed, excessive sums have been retained by bankers as interest or sinking fund reserves, proper interest has not been allowed on deposits for interest or sinking fund, or onerous conditions in connection with retiring the debt have been imposed.

Competition among American bankers for Latin American loans, many of which were thoroughly unsound and should have attracted no experienced banker, was so keen that instances arose where twelve or fifteen institutions would be squabbling for the same issue, with generously paid agents, on virtually unlimited expense accounts, vying with each other in the obsequiousness of their fawning upon Latin American dignitaries who were supposed, often incorrectly, to be able to influence the course of loan negotiations. When an underwriting house succeeded in obtaining a given piece of business, it had to fix the spread between the price paid by the borrower and that at which the bonds were offered to the public, as to cover costs of various loans which had been sought but not obtained. Hence both the Latin American borrower and the American bond purchaser were made to contribute liberally to a wasteful travesty from which neither could gain any possible benefit. Successful competition for loans finally resulted in the dangerous practice of purchasing issues at higher prices than were justified by the credit of the borrower and in

compromising those safeguards which should have been provided for the lenders. In short, this competition resulted in progressively less attractive and less safe securities being offered to American investors.

Economists probably agree that investment bonds should not be treated as an ordinary article of merchandise, like automobiles and chewing gum, and should not be sold by competitive advertising and personal solicitation. Bonds should be considered as a receptacle for trust funds, whether the individual is acting as trustee for his own savings or whether this function is being performed by a fiduciary. Various artifices employed for distributing merchandise are out of place when applied to investment securities and should be discontinued.

Although this appears to be a formidable indictment against American bankers and their methods—and in candor it must be admitted that abuses were widespread—the plane of integrity upon which American financial commitments in Latin America were made since the war was undoubtedly higher than had been the case in previous periods when Latin American financing was prevalent. In the earlier periods British and French interests had been dominant, and although the record of our own bankers is sufficiently unsatisfactory, it is not so unsavory as that of their European predecessors.

One of the recognized prerogatives of the so-called man in the street is to make mistakes and then attempt to shift the blame to others. No more fertile and well-cultivated field for mistakes exists than in how to handle money. It is not mere cynicism to suggest that if the public had not purchased inadequately secured Latin American bonds, bad as they have proved to be, it would have bought something worse. In spite of persuasive protestations by bond salesmen that obscure cities and provinces and central governments with long records of default constituted excellent credit risks, sober analysis would have demolished these blandishments, just as in the case of stocks and real estate which also sold at exaggerated levels. Perhaps the ordinary bond buyer, possessing no great financial technique, should not be blamed for his gullibility, greed, or other attribute which resulted in inducing him to purchase Latin American bonds when it is recalled that our foremost bankers recently fell into an analogous error, and for the same reasons, when they extended excessive short-term credits to Europe. Nevertheless, we may pause to mourn the fact that bond buyers who consulted their banks and acted in accordance with the advice of banks have fared about as badly as those who did not take such precautions. Even country banks were large buyers of Latin American bonds on the recommendation of their city correspondents, and generous holdings of such bonds constitute one of the points of weakness of our banking situation.

Persons who take American banks to task for their Latin American

and fiasco should in fairness include those who purchased the bonds. A buyer as well as seller was required to complete each bond transaction, and failure on the part of investors to exercise ordinary self-control and good judgment cannot be condoned any more than can those shortcomings of bankers which have already been enumerated.

Great difficulty would be encountered in discovering important amounts of foreign bonds which have been purchased by investors because of altruistic feeling toward the borrowing country, desire to promote trade, or ambition to obtain political advantage in such country. Each of these motives possesses recognized force, but their effect on the ordinary American citizen is probably inconclusive in influencing the purchase of a specific foreign bond. Unless the buyer is convinced that such bond affords security of capital and attractiveness of yield equivalent to or better than other competitive offers, no sale will be effected.

Perhaps ignorance that more favorable financial opportunities may be found in other directions has resulted in the purchase of bonds of a given country by nationals of that country who live in the United States. But this is beyond the scope of ordinary finance.

In the absence of war, flood, hurricane, or some other compelling force of an unusual character, there is no way to coerce a political entity into borrowing money. Borrowing is an act of free will, and Latin American governments which now whine about being cajoled into overborrowing are about as convincing an argument as did Adam when he explained that he was seduced by Eve. Even this does not tell the whole story. Latin American officials swarmed to the financial district of New York. They pleaded no urging. There was little overpersuasion; in fact they had to be hight off. To be sure, these same Latin American officials now assume an injured air and intimate that their innocence was betrayed by sophisticated bankers. Inasmuch as Latin America got the money and apparently a considerable part will not be repaid, an equal case might be made that American bankers and their clients were the victims of Latin American duplicity.

Another curious attitude on the part of a few Latin Americans is an attitude of injury and reproach that American bondholders are so materialistic and avaricious as to wish to be repaid those sums which they lent in good faith. Instead of gratitude that substantial improvements which they now enjoy were made possible by savings accumulated in the United States and lent to them, they berate us on the one hand for loading them down with debt and on the other for refusing to extend further credits. So again the maxim is demonstrated that the creditor is popular when he lends and unpopular when he collects. In the present case, however, even when the loans were made we did not create much good will among those who were receiving capital which their credit did not justify.

Customs revenues play a far more important part in the fiscal scheme of Latin America than in that of the United States, and in general this overemphasis of customs constitutes a fundamental weakness in financial structure. Foreign loans have a prompt and pervasive influence on customs receipts, as such loans are almost certain to result in stimulation of imports. Finance ministers in Latin America are notoriously optimistic, and little provocation is required to convince them that any improvement in customs revenues, no matter how abnormal in character, merely represents merited and permanent increase in revenues. Hence budgetary and loan policies are proportionately adjusted upward. Cessation of loans is rapidly reflected in shrinking customs revenues, with the frequent accompaniment of budgetary deficits and defaults on foreign loans.

In the light of our present unhappy condition there is no escape from the conclusion that both the bankers who brought out Latin American bonds, the investors, speculators rather, who bought those bonds and the governments which contracted the loans were all at fault. There was more bad judgment than bad faith. Assessment of blame is only useful in avoiding mistakes for the future. A few precepts which clearly emerge are that bankers should not sell bonds without reference to quality, merely because uninformed purchasers can be found, that investors should not disregard the teachings of past financial experience in regard to unusually liberal yields on capital or else be prepared to take their losses without whimpering, and that overborrowing may be as disastrous to the borrower as to the lender. Credit is a sufficiently useful instrumentality that it should not be mistreated, either by borrowers, investors, or bankers.

Much discussion has arisen as to whether American bankers should insist that loans to Latin America should be used only for productive purposes. Aside from the impossibility of reaching any general agreement on the definition of "productive," it does not follow that so-called constructive loans are always safe loans. For example, construction of a highway would probably be considered a productive purpose, but if the enterprise has inadequate economic justification, either direct or indirect, the wealth and income of a government which might float a loan to build such a road would be diminished rather than increased.

Attempts to require borrowed capital to be used exclusively for productive purposes can also be rendered futile by any government which wishes to waste public funds. Projects are selected which will meet so-called productive requirements of foreign bankers, and these are financed from the proceeds of loans, whereas they frequently should be included in the ordinary budget. Meanwhile, budgetary funds are diverted to those extravagant purposes which represent the real objective of borrowing.

American lenders should look to security for their funds and minimize

considerations. Neither from the points of view of finance nor of national comity should American bankers or investors permit a loan to go on what becomes of the proceeds, provided budget, currency, record, political organization, and other factors are satisfactory. A different course represents offensive meddling in affairs not our business. While productive use of loan funds is desirable, if the borrower's use is so tenuous that it is necessary to impute "productive purpose" to it in order to make it saleable, that loan is lacking in important factors of security.

Another defect in our loan policy toward Latin American governments is when we provide funds for numerous purposes which could best be left to individual initiative. Extravagance in construction, location of public buildings so as to benefit particular private properties, uneconomic projects at the expense of the public treasury, and similar abuses have flourished in Latin America. Even admitting that the development of certain areas and of specific natural resources might have been delayed, there is little doubt that those projects which had to depend on local capital are better financed and more economically constructed and avoid the serious burdening of the borrower to meet foreign payments of interest and principal. One of the chief lies of heavy borrowing abroad is that the domestic economy may not be organized to the disadvantage of national interests in order to obtain foreign exchange for meeting debt service. Presumably economic development has passed beyond the more crude forms of mercantilism and no one believes that a country must export in order to be prosperous. There is no doubt, however, that foreign loans necessitate the exportation of goods or services although capital, labor, and enterprise might be more profitably devoted to the home market. This constitutes one of the most convincing economic reasons for questioning the desirability of foreign loans as such.

Several Latin American republics which have defaulted on their foreign loans have had serious currency or exchange problems. Default in these cases has been about as much due to difficulty in obtaining exchange as to insufficient governmental revenues. Hence loans should be refused to those countries which have shown inability to handle their currencies in a proper fashion and to those whose economic structure is such as to give rise to doubt concerning the availability of ample foreign exchange to meet loan requirements.

Foreign loans to backward countries are often open to question, even for purposes which might be agreed upon as productive. When capital has been borrowed, interest begins to accrue and there is pressure for expenditure of loan proceeds. This either results in the adoption of hasty plans or extravagant expenditure by reason of haste. Under most favorable circumstances losses due to interest accruals on undistributed loan funds are considerable.

Foreign loans to cover budgetary deficits are so palpably injudicious that they may be disregarded. Service on loans for more legitimate purposes has the disadvantage of being a fixed charge, rather than one which expands with prosperity and contracts in times of adversity. Accordingly, the relative burden increases at the very time when tax-paying ability is least. No difference in principle exists between a foreign debt of a state and the funded debt of a corporation. Each denotes departure from the ideal in capital structure.

This reasoning would seem to impose rigid restriction on borrowing by Latin American governments. Payment for public improvements out of revenue is as sound a principle for a state as limiting expenditures to income is for an individual. There is the additional advantage that during times of prosperity government revenues tend to increase, and under careful management a considerable proportion of the increase can be devoted to capital expenditures. When revenues shrink during depression these capital expenditures can be curtailed or eliminated with definite relief to the budget and to the taxpayer. A further refinement of this procedure is to retain part of excess receipts in prosperous times and create a fund which will be available for expenditures during periods of depression. But the important point is that fixed charges within the budget should be retained at a minimum, and this is the antithesis of the encouraging policy of creating foreign debt, which not only incurs a fixed charge but also presumably a prior charge.

Examination of the concept that debt charges have first claim on governmental income, even on customs receipts, shows that such concept is fallacious. Loan contracts for many foreign issues recite that debt service constitutes a first charge on all or a specified portion of the revenue of the state. Even with the drastic reduction in revenues of the several Latin American political entities, there is no case in which revenues do not exceed debt charges. This fact has not prevented default. Self-preservation is as much a law of governments as of individuals. Without maintenance of stable government, revenues cannot be collected, and the conditions in which individuals can carry on economic activity, which form the basis of tax-paying ability, might well disappear. It is of little avail, therefore, that under favorable or even normal circumstances the service of a given loan may be covered three or more times by revenues pledged to such loan, unless an adequate sum over and above debt charges is available for maintaining the government as a going concern during periods of unfavorable income. For there is nothing more certain than that the government will retain at least as much of its revenues as may be necessary for minimum operating expenses, no matter what may be the tenor of loan contracts. Armed intervention or other form of pressure cannot alter this situation, as an orderly economic and political organization

necessary for the creation of those revenues out of which debt service can alone be met.

Hypothecation of revenues in connection with foreign loans affords needless protection during periods of prosperity and is no complete defense in case of adversity. The practice is also obnoxious to national pride. Little advantage except in working out priorities and ratios of settlement in case of default on loans can be claimed for revenue pledges. Loans which have to be buttressed with pledges of revenue have too many disadvantages and weaknesses to be regarded as attractive.

Hence a new principle for evaluating proposed foreign loans may be formulated. Instead of computing the number of times by which total revenues cover debt charges, calculation should be attempted of minimum sums which are necessary to maintain the government as a going concern, with correlation of this amount with the lowest revenues which are likely to be collected in a year of depression. If such revenues are greater than minimum requirements for operating the government, the difference can safely be applied to service of foreign loans. There is hardly need for commenting on how widely this procedure differs from the method for determining safety applied to most Latin American bonds marketed in the United States.

Many government bonds have recently gone into default or are in danger of default because of shrinking revenues or exchange difficulties. When loans have been outstanding for several years, amortization payments constitute an important proportion of total debt service and in time exceed interest requirements. This affords a possibility of establishing effective safeguards for the loan. Loan contracts should require that when government receipts are in excess of specific sums agreed upon as normal, certain percentages shall be devoted to supplementary amortization of debt and that amortization may be reduced or suspended according to a schedule if revenues fall below normal. Numerous defaults could have been avoided by adoption of this device. Another method of applying this principle would be that in prosperous times the government would be required to deposit definite percentages of revenues in excess of normal with the fiscal agent, these sums to constitute a reserve for continuance of amortization during years of adversity. In short, a prosperity index should be applied to repayment of loans, rather than the present practice of compelling borrowing governments to pay equal sums during good years and bad, such sums representing declining requirements for interest and increasing amounts for amortization.

Within the scope of the thesis that no foreign loan or investment is justified unless the capital is safe and reasonable interest will be earned and paid, advantage to the United States from foreign long-term financing is most definitely obtained through the effect on our foreign com-

merce. Not only do loans and investments usually call for considerable expenditures within the lending country for capital purposes, with corresponding profit to those American industries which supply the capital goods, but there is continuing demand for repairs and replacements, technical advice, and various banking transactions which grow out of the original operation. But these advantages are not sufficient to compensate for losses of capital or interest on loans which are improperly secured. In short, they do not justify bad loans.

Out of the stress of the last two years one rather clear criterion for loans has become apparent. Unless the borrower obtains definite advantage, no sound basis exists for the transaction. It is not enough that an American bank needs securities for its salesmen to merchandise, that American investors are in the mood to buy almost anything called a bond, or that a Latin American government has the desire, although not necessarily the need, to borrow. Unless foreign capital strengthens the economic and financial fabric of the borrowing country, the loan in question will ultimately contribute to the kind of chaos which is now so vexatious from both the political and financial points of view. Because so many loans have created liabilities in excess of assets on the national balance sheet of the borrowing government, resentment against the United States is widespread and determination to keep the loans from going into default has been seriously weakened.

From the foregoing paragraphs it should be clear that the present writer places paramount importance upon safety for loans. Detriment both to borrowers and lenders from excessive or poorly safeguarded loans has been so disastrous that there should be no compromise with safety. A proposed loan in regard to which there is valid question about payment of principal or interest is a bad loan and should not be floated. Loans which at issue appear well secured frequently get into difficulty. Absolutely safe loans do not exist, and this is additional reason for not assuming avoidable risks.

No better examples of the advantage of keeping or getting out of debt can be suggested than Venezuela and Haiti. In the case of Venezuela, no foreign debt exists, and the internal debt is nominal. This country has escaped political disturbances of a serious character and has suffered little budgetary embarrassment.

Few countries are more formidably handicapped by tradition and physical disadvantages than Haiti, yet a vigorous policy of paying debts during favorable times and refraining from borrowing merely because loans could be obtained has left the finances of that country in excellent shape. Quotations of Haitian bonds are above those of almost every other Latin American country, the budget is virtually balanced, and Haiti still possesses relatively large unobligated cash balances in the

treasury. Countries of far greater potentialities, such as Brazil, Chile, Peru, and Bolivia, have suffered political or financial demoralization, or both, largely because of excessive borrowing.

If loans to Latin American governments are likely to be narrowly restricted, provided both borrowers and lenders pursue principles of prudent finance, does a field exist for American investments in Latin America which will be mutually advantageous to the investor and to the country in which the commitment may be made? In spite of unhappy experience with sugar plantations in Cuba and oil properties in Mexico, the agricultural and mineral resources of Latin America, together with many latent possibilities for the development of communications, manufacturing establishments, and commercial enterprises, offer fair promise for American capital. Recent revolutions should not obscure the fact that significant progress has been made in maintaining political stability; striking advance in the standard of living suggests that the population of Latin America has to some degree the will and the means of attaining more physical and cultural enjoyments; immigration and communications are gradually removing Latin America from among the so-called "backward countries."

Latin America has two major handicaps. Both of them help to explain why American loans and investments have tended to be disappointing. With the exception of coffee and bananas, the world could approximately maintain its present standard of living without Latin American products. For a short time there might be some scarcity of sugar, but this problem could easily be solved; Africa, Canada, and the United States can furnish all requirements of copper; the Malay States can produce ample tin; nitrate can now be obtained by chemical processes; petroleum is in sufficient supply from the United States, Europe, and Asia; wheat is abundant without Argentina; meat animals, hides, wool, and cotton can easily be procured elsewhere. Few outstanding natural advantages exist for Latin America either in types of commodities or in prices at which they can be placed upon world markets. Even the potential wealth of Latin America, so far as it has economic significance, has been grossly exaggerated.

Second, the Latin American population has not been characterized by resourcefulness, energy, efficiency, or thrift. Hence those natural resources which exist are not utilized effectively. A common error is for projects to be formulated by foreigners on the basis of generous natural resources or low wage rates in Latin America. Experience frequently demonstrates that total unit costs are not particularly low and often do not compare favorably with costs of competing countries, although those countries may have inferior natural advantages.

Under these circumstances development of Latin American resources

by local capital and enterprise will undoubtedly be slow, and many disappointments will accompany foreign efforts. In view of the deficiency of energy and skill which the Latin American population displays toward making the most out of its own potentialities, an admirable opportunity is afforded for immigration. Considerable progress in this direction has already occurred, particularly in southern Brazil, Uruguay, and Argentina, where German and Italian immigrants have made about as creditable a record as have German and Scandinavian settlers in comparable areas of the United States.

Instead of a storehouse of actual wealth, Latin America should be considered no more than a reservoir of economic potentialities, with these at present largely beyond the purview of world requirements. Profitable development on a large scale will occur only when prices of the various commodities which Latin America produces rise until the comparatively high costs of that region can be met or until immigration and foreign capital reduce costs to current competitive conditions.

Although producers of raw materials have been more seriously affected by recent declines in commodity prices than have manufacturing and distributing enterprises, there is some basis for believing that the next phase of world economy will be definitely favorable to countries specializing in raw materials. Preference to live in cities has been one of the outstanding characteristics of the twentieth century, and this has gradually caused overemphasis of manufacturing and commerce until competition in these branches of activity is probably as serious as among producers of raw materials. Greater progress in technical improvements have been made in industry than in agriculture, with further accentuation of industrial competition. Not only are the foodstuffs, minerals, and forest products of Latin America likely to enjoy more favorable competitive conditions as compared with leading manufacturing countries, but nothing prevents important progress from being made in the development of manufactures in several Latin American republics.

As a net debtor, Latin America has been handicapped by the recent world trend toward increased tariffs. American creditors have also been injured. Nevertheless, while emphasizing our own tariff sins, which are great, we should not ignore those of many Latin American countries which are equally flagrant. A surprisingly large percentage of Latin American exports to the United States enter duty free, and the average duty levied on all Latin American commodities entering the United States is much lower than that imposed by the several Latin American countries on products originating in the United States. Although our tariff policy is certainly open to criticism, the countries of Latin America are not in position to cast the first stone. That our tariffs are much less at fault than declining commodity prices in causing economic distress in Latin

America is amply proved by the fact that the volume of imports has fallen quite modestly, sharp decline being limited to value.

Such striking resemblance exists between the economic history of the United States in the nineteenth century and that which has characterized the elapsed portion of the twentieth century for Latin America that continuation of this resemblance is not unlikely during future decades. Already Latin America possesses two of the four largest cities in the western hemisphere. Capital and management for industrial and commercial enterprises have been obtained from abroad much as occurred in the early years of our own country.

Another striking analogy exists. European capital which came to the United States tended to take the form of bond investments, whereas subsequent events have shown that bonds had little greater safety than ownership of carefully selected natural resources and that mere ownership of bonds has prevented the lenders from sharing in the phenomenal development of those resources. Somewhat similar mistakes have been made by American capital in Latin America. Preference for loans to governments during recent years, as compared with direct investments, has already been mentioned, and even when commitments were to be made in Latin American natural resources or commercial enterprises, little capital was attracted except by participation in bond offerings.

Lack of reliable and comprehensive information and fear of placing capital within the jurisdiction of Latin American courts have undoubtedly been responsible for this attitude. Utopian labor laws have also had a restraining influence. However, if the bond of a company doing business in Latin America affords proper security, it is obvious that such bond must be protected by good junior securities, and the latter offer possibilities of capital expansion as well as safety of principal. Soundly conceived projects in rapidly developing areas and ownership of natural resources within such areas have often proved their financial attractiveness. Yet our investors have been inclined to avoid ownership in favor of promises to pay.

Adequate machinery for assembling and evaluating information on which Latin American investments may be made does not now exist. Certainly underwriting houses have been unsound guides. Departments of our government cannot appropriately make recommendations in regard to the business merits of particular enterprises or the stability of specific governments. No comprehensive and reliable information is available in regard to funds already committed in Latin America, although this is far simpler than appraising the merits of new propositions. Various proposals for the formation of organizations comparable to the British Council of Foreign Bondholders have been made, but the insuperable difficulty has thus far been that no way has been found to finance an

organization whose opinions could be regarded as disinterested. Bankers have exhibited certain willingness to establish a protective organization, but the experience of the public with banks which have underwritten Latin American bonds has been such that a protective organization financed by banks would inspire little confidence. Actual holders of Latin American securities are so scattered and have such small individual interests that there is almost no possibility of obtaining from them sufficient funds to support a competent organization operated for their benefit.

Recognizing that competition for loans among American underwriting houses has been largely responsible for whittling down those safeguards which in their mutual interest the bond buyer and the borrowing government should require, certain persons are now considering whether an organization should be created to pass upon the merits of proposed new issues rather than to salvage issues which have gotten into trouble. This proposal is outlined for discussion, rather than recommended. Such an organization would correspond to those for the assay of ores, the testing of materials, or any one of numerous enterprises by which prospective purchasers can obtain authoritative technical opinions on the quality of merchandise offered for sale. Such an organization could not be subservient to governments nor to bankers seeking loans nor to investors who are looking for market tips. Possibly a practicable method of financing such a clinic of preventive finance would be to make a small charge, say, .25 per cent, on the proposed issue, payable whether the loan is approved or rejected.

If such a technical bureau should become well established, a government or banking house would find it difficult to sell an issue of bonds which did not embody the qualifications required for obtaining the approval of the bureau. Or, stated in another way, the price at which an unapproved loan could be sold would be so much more disadvantageous to the borrower and the cost of distribution would be so much greater to the banking syndicate that sale would be unassured if not impossible. Should such an organization exist, no investor would have great cause for complaint if he should get into trouble with bonds which had not been submitted for approval or had been sold without being able to obtain approval. On the constructive side, such a bureau of inquiry, if competently organized and honestly conducted, should soon be able to command such confidence that its hallmark on a bond would mean much to the borrower in the way of reduced interest charges, and submission to the bureau would therefore be insisted upon by the borrower.

Modern thought is distinctly in the direction of prevention rather than cure. After an ill-conceived loan has been issued, very little can be done to prevent evil consequences both to debtor and creditor. It is clearly in the direction of preventing such loans that ingenuity can best be em-

loyed, although the organization suggested in the preceding paragraphs should also be useful in default and refunding negotiations.

If bankers are subject to deserved criticism for selling improperly secured Latin American issues, if bond buyers cannot evade the responsibility of allowing their judgment of safety to be warped by the temptation of high yields, and if Latin American governments have to assume merited censure for betraying positions of trust by plunging into reckless borrowing, has our government contributed to the general disaster which has now befallen American investments in Latin America?

In the early years of the twentieth century our government invited certain bankers and business men to intervene in specific Latin American situations. Such policy cannot be defended, and it has long since been discontinued by the government. There is a more subtle type of governmental intervention which is equally undesirable. It takes the form of propagating the doctrine that our foreign trade, notably exports, should be extended aggressively and that foreign investments constitute the most certain means of stimulating trade. This doctrine is preached to the farmer, to the manufacturer, and to the banker. Consuls and commercial attachés through activities in the field and reports to the home government try to promote trade and investments, whereas in many cases warnings of danger involved in proposed loans or commercial transactions would be more appropriate. Economic analysis can reveal no more reason why a government should employ taxpayers' money in attempting to sell automobiles in Argentina than in New York City. Foreign trade and investments should not be encouraged; neither should they be discouraged. They should develop along lines of orderly procedure, with no occasion for special governmental solicitude.

A second activity or attitude of the government which may well be called into question involves the complex problem of protection. This question is divided into protection of the general national interest and protection of individuals who live in the Latin American republics or acquire some kind of financial stake in these countries, whether by loans to governments or by direct investments. In an effort to safeguard the public interest, the Department of State adopted the policy of requesting that all proposals for loans to governmental entities should be submitted for the purpose of determining whether such loans would be in contravention of national policy. This procedure has been in effect since 1922, and certain loans, notably the coffee valorization loan to Brazil, have been abandoned for original issue in the United States because of objection by the Department of State. While American bankers desisted from bringing out this loan in deference to objections by the Department of State, the loan was issued in London, and a substantial portion of the sterling bonds was distributed by American bankers in the United States.

Although the Department of State specifically disclaims responsibility for passing upon the business merits of proposed loans, it is beyond question that bond salesmen have on numerous occasions emphasized the fact that their wares have passed the scrutiny of United States officials. Stated in other terms, there is little doubt that considerable amounts of otherwise unsaleable Latin American bonds have found a market in this country because of the rather innocuous visa to the effect that "the Department of State perceives no objection" to the proposed issue.

As there is no legislation which requires underwriting houses to inform the Department of State in advance of proposed loans, and as no sanctions exist for preventing the flotation of loans which might be offensive to the Department, the existing practice of passing upon loans from the point of view of national policy should be abandoned or should be placed upon a legal basis. Abandonment seems clearly preferable. While responsible underwriting houses might defer to the wishes of the Department of State, it is also probable that such houses would not seek to underwrite issues which are likely to meet disapproval. Less scrupulous houses would either refrain from informing the Department in advance of proposed issues or would fail to respect objections which might be made.

Scrutiny of proposed foreign loans from the point of view of national policy not only affords little protection to our interests, but the Department places itself in the equivocal position of assuming certain indirect moral responsibility by not disapproving loans which are economically unsound, though not politically objectionable. Disapproving the loan policies of certain Latin American republics while sanctioning those of others may also prove a source of embarrassment. Under the terms of various treaties, approval by the United States government is required before certain Latin American governments can increase public debt. But more reason exists for diminishing present responsibilities, where this can be done without disregarding definitely assumed commitments, than for accepting new obligations of a vague and offensive character. In like manner, American banks should evaluate the advantages and difficulties which have accrued under loan contracts with Latin American governments involving budgetary, currency, and other stipulations before entering into new agreements of these kinds.

For the United States, these treaty obligations, involving certain financial features, impose some disagreeable duties without corresponding advantage. They represent charity and can only be defended as our contribution to the advancement of backward countries. It has recently been popular for Americans to condemn these treaty relationships, on the ground that sovereignty of the states involved had been invaded. In most cases, this attitude of our own population results from lack of first-hand

nowledge. Citizens of a demoralized Latin American republic who have been exploited by their own politicians do not resent assistance from the United States in terminating abuses, when this takes the form of technical commissions, such as those headed by Professor Kemmerer, but expenditures of marines are not always popular. Thought of these citizens is upon public funds which are no longer stolen, upon roads, hospitals, and schools which are provided, and not upon philosophical questions of sovereignty. Yet the politicians, most of whom are lawyers of a sort, now eloquent in depicting the anguish of soul with which the people involved have seen their alleged independence impaired. Such politicians are at least correct in recognizing that their own former activities have fallen in evil days. They are no longer able to regard the public treasury as a happy hunting ground. Under American control the government pays its debts and exercises probity in its financial policy, all of which makes the politicians think back with regret upon the termination of their own régimes. Yet the population as a whole takes this change complacently, often gratefully.

Intervention in behalf of American nationals who have failed to receive proper protection of person or property in foreign countries involves legal and political problems of the utmost complexity. International law seems to sanction intervention only when the national of one country has conducted his activities in strict accordance with law, has been injured in his person or property, has exhausted legal remedies available locally, and when there has been palpable denial of justice. All of these factors afford so much scope for differences of opinion regarding fact or law that divergence of conclusion is not only probable but almost inevitable as to whether a given case justifies intervention.

Few if any instances can be cited of intervention by the United States government except upon invitation of the government concerned or after prolonged provocation and when a large number of those most intimately acquainted with the entire facts surrounding the specific case have considered that failure to intervene would represent infringement of the rights of American citizens to reasonable protection by their government. With little question there have been more instances of refusal of the United States government to intervene, even in meritorious cases, than of hasty or unwarranted support of fictitious complaints of loss or damage by American citizens.

Much has been made of the fact that the United States shows no inclination to intervene in the case of strong powers but adopts this procedure only against the weaker republics. Criticism of this character fails to take into account that flagrant denial of justice does not occur in stable and responsible states. In countries where laws afford proper protection to foreigners and in which courts have established the reputation

for honest enforcement of laws, slight reason for intervention can arise. Actual experience bears out these a priori expectations. Definite proof of rectitude on the part of American citizens claiming protection and of shortcoming on the part of the Latin American government concerned has constituted and should constitute the only basis for actual intervention by the United States.

Recently a novel policy has been proclaimed by the Secretary of State. It is that protection of American lives cannot extend to foreign countries as a whole but only to certain zones along the seacoast. This inept pronouncement implies that an American doing business in Havana would be accorded the support of his government to which he is legally entitled but that one acting in precisely similar fashion in Bolivia would have no assurance of assistance if his rights should be invaded. Mere recital of this doctrine indicates the added difficulties which it will create for citizens of the United States attempting to live or do business in Latin America. Such a statement of policy by the British, French, German, Italian, or Japanese government is inconceivable, and our own government should promptly recognize that duty to its citizens is not a matter of geography.

Criticism has frequently been leveled at the Department of State for alleged lack of continuity of policy in dealing with Latin America. While certain principles have to underlie intelligent and effective conduct of foreign relations, practical application of these principles is always a matter of judgment. Difference of opinion often exists as to whether a given principle is involved, let alone how it should be made effective. In short, the Department of State should be commended rather than censured for considering each case as it arises on its individual merits. To fit principles into a given set of facts is preferable to disregarding facts in order to maintain the theoretical integrity of a body of doctrine. Almost any policy which would have been applicable to conditions in Latin America fifty years ago would be out of place today. All that can be reasonably required of the foreign office is that it be accurately and promptly informed of developments in Latin America and that action be suited to such developments as occur.

Methods of settling controversies between governments present unduly complicated questions for discussion at this time. Whether adherence to the World Court, unilateral or multilateral conciliation, arbitration, or armed intervention constitute appropriate procedure are matters of wide difference of opinion. Historically, there is no recent case of intervention in Latin America by the United States except for adequate cause. Direct action has frequently been as much for the protection of other foreign interests as for those of the United States, and was predicated upon the inconsistency of objecting to measures which might be taken by other

foreign powers for protecting the interests of their nationals, while our government refused to assume this responsibility.

To safeguard American interests abroad, notably in troubled areas, is palpably a more difficult task than to provide an orderly domestic administration. Tendencies toward irresponsibility on the part of certain governments cannot afford sufficient excuse for the United States government to evade its obligations. Bryan's doctrine that Americans should keep their lives and property away from dangerous places is hardly consonant with modern concepts of international comity. While the United States government should participate in every promising proposal for peaceful settlement of disputes, and while positive action toward governments which do not meet their obligations should never be hasty nor without adequate cause, there should be no hesitation about preferring intervention to abandonment of legitimate American rights and interests.

Recent policy of the Department of State has not inspired American business men with great confidence so far as assurance of proper support of commercial and financial interests abroad is concerned. Temporary favor of a foreign government or people which is obtained by sacrificing the property rights of our own citizens has been too dearly bought. Permanent respect, which is the only solid basis for fruitful international co-operation, cannot be established if foreign governments are with impunity permitted to infringe American rights.

One of the reasons why American loans and investments have gotten into difficulty in Latin America is that some of the less responsible governments have apparently made a point of seeing how far they could go in harassing American business and financial interests and still avoid intervention. As the precise point at which direct action will be adopted by the United States cannot be known in advance, the stage is well set for the pleasant pastime of teasing the eagle. These governments well realize the extent of American and world opinion against intervention under any circumstances and take advantage of this restraining influence on American policy.

Accordingly, armed intervention and punitive expeditions should become matters of international concern, so that a single country will no longer need to assume opprobrium and be subject to implications of improper motive for doing the unpleasant police duty of compelling irresponsible or malicious governments to preserve that degree of orderliness and justice which progressive society now demands. Joint action by creditor governments, possibly through the Financial Committee of the League of Nations, might have avoided defaults by certain Latin American political entities or might prevent defaults which now seem to be inevitable.

To summarize, American capital was loaned to Latin American governments in excessive amount; competition among underwriting houses of this country and as between American and foreign banking groups was largely at fault; many enterprises which have been sponsored by Latin American governments and financed by foreign loans should have been left to local enterprise; loans which require pledging of revenues or foreign administrative intervention for making them saleable are of questionable desirability; an organization for dealing with defaults and for preventing the flotation of unsound loans in the future is seriously needed; such organization should not be a governmental bureau, nor should it be under the control of underwriting houses; loans can only be justified when there is definite advantage for the borrower and security for the lender; lenders should not undertake to determine whether loan proceeds will be expended productively, but should insist on ample security; American interests will best be served by commitments in natural resources and business enterprises in Latin America rather than by loans to governments; the Department of State should not undertake to pass upon foreign loans; protection of legitimate American interests should be unquestioned and should not be confined to the seacoast; governmental policy should be flexible and in harmony with changing conditions; intervention is distasteful but should be employed rather than permit American rights to be invaded; intervention might well be international in character and should be invoked for preventive as well as punitive purposes; intervention need not be confined to military activities, but may consist of authoritative financial advice to countries which are inclined to forget that the best way to prevent wars and effectively utilize natural resources is to deal fairly with the persons, property, rights, and interests of others. The United States is so deeply committed by reason of its foreign investments that it cannot avoid heavy responsibility for eliminating those abuses and mistakes in policy which have led to the existing economic and financial disorder so vexing both to Latin America and ourselves.

DISCUSSION

VICTOR S. CLARK.—What I shall have to say about the papers of Dr. Cumberland and Dr. Winkler will not underline substantial differences of opinion with either of these speakers.

Dr. Winkler's classification of our financial undertakings in Latin America into portfolio investments—that is, loans to foreign governments—and direct investments might profitably be amplified so as to divide the latter into two groups, those contingent upon public franchises and concessions, and those entirely upon a private basis. The first of these two groups may be affected with a political interest, and I should fancy that the security of such investments might, in certain contingencies, be influenced by political uncertainties as definitely as the safety of foreign government bonds. Both Dr. Cumberland and Dr. Winkler point out that direct investments exceed more than four-fold portfolio investments in the Caribbean countries, including Mexico and Central America, whereas portfolio investments greatly exceed direct investments south of that area. If we include within the Caribbean region Venezuela, which has no foreign debt, but where nearly a quarter of a billion dollars of American capital has been placed in private enterprises, this difference is still more striking.

Another fact to be emphasized in Dr. Winkler's figures is that since 1918 our investments in Europe have increased nearly four times as rapidly as our investments in Latin America. Whatever criticism may be made of the artificially promoted movement of American capital to our southern neighbors would seem, therefore, to apply with equal force to the methods by which certain trans-Atlantic securities were placed in the American market.

Dr. Cumberland's recommendations are so well advised that they scarcely need discussion. I think most of us will agree that the Department of State might not to pass on foreign loans even for the purpose of easing its own diplomatic burdens. That practice proves in experience to carry with it an inescapable obligation of tutorship, which is onerous to our government and misleading to investors. A strict application of the *caveat emptor* doctrine to dealings in international securities will probably do more than the blessing of a political godfather to promote the soundness of such obligations. Any official intimation that the United States will intervene to protect the legitimate interests of its citizens only within the coastal areas of foreign countries can hardly be construed as a general policy. Dr. Cumberland's recommendation that where intervention is unavoidable it should be international in character, and should be invoked for preventive as well as punitive purposes, would presumably be limited, at least in the Caribbean area, to nonmilitary measures.

We all share, I am sure, Dr. Cumberland's desire to see an independent, non-governmental fact-finding agency established to inform prospective investors of the true conditions under which Latin American securities are issued. The difficulties that such an agency would encounter in analyzing the government revenues and expenditures of certain of our neighboring states would be very great, and perhaps insurmountable. A recent personal experience in one of our own dependencies has impressed me with the labyrinthine

character of the treasury and audit accounts that form the raw materials for such research. Yet financial houses in this country have in some instances carried out such investigations with a considerable degree of success.

Coming now to the question of direct investment in non-public, private enterprises—for there is not time to broach the franchise question—it seems to me that we need, particularly for the Caribbean area, an authoritative study of the relative social and economic advantages for the native population of the plantation and the peasant system. This is not primarily an investment problem; but it touches fundamentals upon which the long-time safety and remunerativeness of certain kinds of capital placements rest. My provisional opinion is that the plantation organization is inevitable in the more important branches of staple tropical agriculture. The employees of most American plantation corporations appear, as a rule, to be better off materially than the neighboring peasantry. On the other hand, labor importation by great corporations, such as has occurred in Cuba, is of doubtful advantage to the country where it occurs. It encourages an overexpansion of certain industries, and lowers the civic standards of the resident population. But even where labor importation does not occur, a plantation organization of agriculture is likely to cause technological unemployment. These conditions may produce an unbalanced national economy, social unrest, and political instability, detrimental to alien investment interests.

Last of all, Dr. Cumberland and Dr. Winkler have written their papers in the sombre atmosphere of our chief financial center, in the shortest and darkest days of an exceptionally gloomy year. I am not so sure that the attitude of those who may discuss this question at some future meeting of our two associations will find such a wide margin between the promises of 1929 and the actualities of the time in which they speak. And as that margin narrows, the spirit of censure may somewhat abate.

WALTER H. C. LAVES.—The papers of Dr. Cumberland and Dr. Winkler emphasize three major problems in the field of foreign investing. The first problem arises from overborrowing by backward countries and involves setting up a regulatory agency which will, on the one hand, determine how much can safely be borrowed by a given prospective debtor, and which will, on the other hand, give to prospective investors the complete facts about the financial status of the debtor country. As both of the previous speakers have suggested, backward countries have been encouraged to borrow beyond their resources, and bankers have been overzealous and not altogether scrupulous in selling certain foreign government bonds to unsuspecting investors.

The second problem centers about the scrutiny of foreign loans by the Department of State, and raises questions of policy in view of the inevitable effect which such scrutiny has upon the investing public. In particular, this raises the question of the moral responsibility of the Department in the event of default by a government to the issuance of whose bonds on the American market it did not raise objection.

The third problem is that of the protection of the investments of its citizens by the United States government.

Dr. Cumberland suggests that the first of the three problems might be par-

ially solved through a commission of nonpartisan experts who would pass upon a proposed loan and whose approval of it would enhance the market value of the bonds, while its disapproval might preclude satisfactory sales. As I understand the proposal, this body would not in any way attempt a solution of the second and third problems, except in so far as the exercise of greater care in the flotation of loans would reduce the necessity of government scrutiny and protection.

I would like to suggest that the three problems are so closely related that some one authority should attempt a solution of all, and that since they are of more than national concern, this authority should be international. To grant to a commission representing American holders of foreign government bonds the functions suggested by Dr. Cumberland would, perhaps, protect the interests of the American bondholders. But it would not protect the interests of the debtor government. It would not serve as a body which could map out a long-time program of financing for weak debtor countries, since creditors in other countries might float loans, even when they were advised against by the American commission. Its existence would not place a curb upon the policies of government scrutiny of bonds or of government intervention for the protection of foreign investments; in fact the existence of this commission might actually increase government action in both respects, in view of the concentration of interests. Finally, since this body would represent only the creditors, it would have little concern for the international effects of proposed loans.

What we need, rather than such a partisan commission, is one which combines three interests: first, that of the investor; second, that of the debtor country; and third, that of the international society as a whole.

It is suggested, therefore, that an international body similar to the Financial Committee of the League of Nations might be set up to perform the functions which Dr. Cumberland's commission would have, with the added power of outlining and administering any controls which may become necessary in the event of threatened or actual default. Because of the international character of the body, and because it alone would have the power of passing upon loans and the right of intervention in the event of default, long-time plans for financial reconstruction could be effectively carried out, and government interference with foreign investing would become unnecessary. Moreover, this international body could withstand pressure for the approval of loans better than national governments, which today sometimes dare not disapprove economically unsound loans because of the political implications for their international relations.

While it is true that such international control might cause some ill-will and while certain countries which are overcharged with a sense of their greatness would resent the proposal that they submit their exchequer to the scrutiny of such an authority, I believe that this would be merely a matter of transition, and that a few additional financial analyses such as the League of Nations Financial Committee made for Austria would soon instill confidence in the ability and impartiality of the international body.

In conclusion, I would say that I should prefer not to invest anybody with the authority I am proposing to give to this international commission. But the

alternative, which is the policy we have been pursuing during the last hundred years and which has been so admirably reviewed by both speakers, appears most unsatisfactory and in need of complete revision.

JOHN RICHARD MEZ.—To the economist, the large-scale foreign investments of modern times present a novel problem. The flow of capital from nation to the other is as much the result of a country's obligation to balance its accounts, as it is the effect of a deliberate policy of borrowing and lending. America's credit balance of international payments dates from the World War; it has been accentuated by the tariff laws of 1922 and 1930 restricting the importation of goods. The outflow from the United States of investments amounting to over fifteen billion dollars, one-third of which went into Latin America, should therefore hardly be termed "excessive" or "unwise," in that it is the inevitable corollary to America's position as a creditor nation. It is neither "dollar diplomacy" nor deliberate "imperialistic encroachment" upon Central or South American countries that has caused these huge capital exports, but rather the inexorable operation of natural economic forces. The excess capital accumulated in the United States from European countries, the payment of exports during and since the World War, has been the chief impetus to this outflow of international investments. In permitting the development of an international financial system which results in the unilateral transfer of such large sums of capital from one country to another, without adequate facilitation of the balancing of payments, we should not be surprised when we ultimately arrive at an impasse, and an overexpansion of foreign investments. Once a heavy international indebtedness has been created, high protective duties erected against the principal products of the debtor countries will naturally render the repayment of principal and interest more difficult and tend to throw the machinery of international payments permanently out of gear. Under such conditions, no military "protection" or any other outside agency will, in my opinion, be able to insure safety, ultimate repayment, of these foreign investments.

Cuba offers a striking illustration of the effects of the United States legislation upon American capital invested in the island. At the turn of the twentieth century, the United States had invested in Cuba about \$50,000,000. In 1928 the American holdings in Cuba were estimated at thirty times that amount (\$1,505,000,000). But even this stupendous sum represents only half of America's total investments in the Caribbean region alone. The greater part of this capital—about \$800,000,000—was invested in the sugar industry and the rest in mining, public utilities, etc.; moreover, Cuba's entire public debt is held in the United States, so that about 15 per cent of Cuba's wealth is represented by American investments. The advent of so much foreign capital into Cuba has given great impetus to the economic progress of the island and has unquestionably led to a higher standard of living of the Cuban people. Cuba offers an excellent corroboration of the beneficial, rather than detrimental, effects produced by foreign capital (just as, incidentally, the United States was largely developed in the early days with the help of capital imported from Europe). There has been any interference with Cuba's sovereignty or political independence, this was not contingent upon these investments. Nor were

economic hardships suffered by Cuba in the more recent past caused by foreign capital. They were primarily due to the tariff on sugar, Cuba's principal product. The sugar duties were largely responsible for the reduction in the last decade of Cuba's exports to the United States to one-third (from \$76,000,000 in 1922 to \$120,000,000 in 1930). American exports to Cuba (particularly of automobiles!) have similarly dropped, as for example from \$100,000,000 in 1926 to \$98,500,000 in 1930; i.e., to less than one-half in four years. The inhabitants of the island of Cuba now find themselves in the grip of a serious economic depression which has led to a tense political situation, and even to food riots. American investments in Cuba have greatly depreciated in the past year or two, as a direct and indirect result of these facts (from \$1,500,000,000 to about \$900,000,000, or by two-fifths). Adding that a considerable value of capital may have been added by the American sugar tariff to the domestic production or to that of Porto Rico, Haiti, and the Philippines, it is questionable whether this increase in capital value will suffice to compensate for the losses incurred in Cuba (not to speak of the higher sugar price to be paid by American consumers, nor of the hardships suffered by the industries and workers formerly engaged in the manufacture of United States exports to Cuba). An adequate protection of foreign investments should therefore be based on sound international commercial policy at least as much as on military force or government control.

Mr. Cumberland insists that protection of legitimate American interests should be unquestioned. If by this he means military protection, he might well be asked whether the public investing its savings in domestic enterprises could not be similarly safeguarded by military force against all risk. It is hard to see why the domestic investor should assume greater risk. Moreover, in the economic process by which the modern world lives, military force is hardly an effective instrument to insure permanent productivity of financial stability, as clearly demonstrated by past experiences. The reasons for this are brilliantly set forth in Norman Angell's *Great Illusion*. The failure of countries like Russia, Germany, or France, for example, to meet their international obligations could hardly be remedied by the dispatching of soldiers and marines. In 1923 the French invaded the German Ruhr district, but they failed completely to produce any tangible financial results.

Intervention in the affairs of a foreign country, when it becomes necessary, might in modern times preferably be undertaken through joint international rather than national action. In recent years, new methods have been developed in the handling of international problems. The technique of international financial co-operation has been successfully applied by the League of Nations in Austria, Hungary, Bulgaria, and Greece. To be sure, at the present structure, the League of Nations or the World Court could hardly be considered to be acceptable agencies for the protection of America's interests in the Caribbean, but the Pan-American Union, or still better, a group of leading Latin American countries, might well be asked to undertake such joint intervention in the future, when necessary.

With the restoration of an improved Haiti to self-government in the past year, with the gradual withdrawal of the marines from Nicaragua, with the

new policies inaugurated by President Hoover, public opinion at home and abroad has come to realize that the United States does not covet the Caribbean or Central America as a permanent field for political expansion or imperialistic conquest. "We have no desire for territorial expansion, for economic or other domination of other peoples," President Hoover proclaimed in Boston on October 15, 1928. Our democratic system he declared to be a very negation of imperialism."

The United States, without being unmindful of its trust and interests in the Caribbean, without abandoning the Monroe Doctrine or the necessity of security, has, after many trials and tribulations, and after many changes of policy, gradually come to recognize that her own interests as well as those of other nations will best be served by the fullest possible economic expansion in the Caribbean, with political independence of that region preserved and respected, as far as is compatible with international obligations, on the basis of friendly co-operation and helpful advice in the development of resources, the maintenance of high standards of government and public finance, the advent of American capital and enterprise in the regions south of the Rio Grande has already led to a rapid growth and great economic progress, economic prosperity and the true interests of the American investor are fully preserved in Latin America, and particularly in the "Mediterranean of the Western Hemisphere," if these populations are to enjoy a steadily rising standard of living, and to be liberated from ignorance, illiteracy, and disease, the peaceful development of their resources, with the continued assistance offered by the United States, will be of paramount importance. The Monroe Doctrine, in this century, may well be effectively maintained and supplemented by new forms of international co-operation and mutual economic assistance, in keeping with the new demands of international interdependence, and the declared policies of the renunciation of war as an instrument of national policy. On the other hand of course the new art of investing a nation's surplus wealth requires skill and eternal vigilance, for what profiteth it a nation to gain all the world's gold, and to lose its foreign investments? As Polonius' advice, "Neither a borrower nor a lender be; for loan oft loses both itself and friend," cannot be applied in our modern economic world with its international ramifications and evergrowing international interdependence.

BENJAMIN H. WILLIAMS.—The paper of Dr. Cumberland was sent to me in advance of the meeting, and I consider it to be a real contribution arising out of his rich experience with Latin American finance. If, being a political scientist, I shall confine myself to the latter part of his paper which deals with intervention and if I shall dissent somewhat from his conclusions, I trust that my attitude will not be interpreted as a failure to appreciate his excellent treatment of the economic aspect of the question which constitutes the greater part of his paper.

In all of the great creditor countries there exists a sentiment among their citizens who invest in weaker and somewhat unstable countries that intervention is an appropriate procedure for the protection of property. In some groups a mystical faith is sometimes held in the almost infallible justice of

interventions, a belief which arises from the legal concepts, the dominance, and the assurance of the creditor people. But is the creditor always right? Remember our defaulted state debts and the exalted business with which some senators have fought to keep these unpaid. Emotions beyond the possibility of arbitration. Remember also some of our important interventions as, for example, that in Panama in 1908 in which reason for intrusion seems to have been the failure of the Colombian Senate to lease us the canal zone promptly for our price of \$10,000,000. The amount of \$25,000,000 later was an acknowledgment of error both as to the mode of procedure and as to the amount of the price. By the very nature of complicated questions they cannot always be settled justly on the unilateral action of one party and that action taken under the emotions which may lead to a resort to arms. We may at least expect a distribution of errors leading to the theory of probability.

In answer to the charge that the United States intervenes against the weak and against the strong, we are told that the reason is legal. The weak nations furnish American property with less protection than do the strong and governments, and, therefore, our interventions are naturally against the weak. This does not seem to be an entirely adequate explanation. By the very nature of the armed intervention process, it cannot be carried out profitably against strong governments. That would mean serious war and the ultimate result would be possibly a thousand times as much as the value of the property involved.

Russia, some years ago, nationalized the property of a number of American corporations, repudiated large amounts of bonds held by American citizens, canceled a debt of more than \$190,000,000 owed to the United States government. No Latin American country has ever acted in this summary and despotic fashion toward American property. If intervention is based on general and legal principles, if it works against the strong as well as against the weak, if it is not a matter of geography, the United States should take steps to recover this property. Calvin Coolidge, who set a high standard in protectionist doctrine, said that the person and property of the citizen are part of the general domain of the nation, even when abroad. These are strong words. If they are true we should send an expedition to Russia. Perhaps we could induce the founder of the doctrine, Mr. Coolidge, to lay down his pen and, as Napoleon once did, lead a march upon Moscow. But, so far as can be ascertained, no serious suggestion to do this has thus far been made. May I repeat, by the very nature of armed intervention it cannot be used with profit against strong countries.

It has been stated that the treaties for financial control in Latin America pose disagreeable duties upon our government. "They represent charity and can only be defended as our contribution to the advancement of backward countries." To my mind the "white-man's-burden" theory of our treaty controls is not entirely enlightening. The fact is that our controls in Cuba, the Dominican Republic, Nicaragua, and Haiti were all undertaken clearly on the theory that they in some way helped the United States, whether by the safe-

guarding of the enlarged Monroe Doctrine or by the establishment of a credit and the maintenance of a higher level of prices of securities held by American investors.

When the subject of the collection of customs by the United States in Haiti was being considered between the two governments in 1914, the Haitian minister of foreign affairs was interpellated in the Haitian Senate regarding the negotiations. During the questioning a Haitian senator took the floor and the draft of the convention being considered between the two governments. The enraged Senate then arose as one man and leaped at the unhappy minister who left the chamber at top speed. An armed intervention, which would result in the killing of more than two thousand Haitians, was necessary before the customs control policy could be forced through. After our intervention, the United States created a friendly president, but on the question of customs control he turned out to be too slow for us. The occupation authorities threatened that if he did not sign the treaty a military government would be set up until "honest elections" could be held. Financial assistance to the Haitian government and the payment of back salaries to senators was promised when the treaty should be approved. Finally, Admiral Caperton, on instructions from Washington, told the Haitian cabinet that he was glad that all classes demanded the ratification of the treaty and that it would be ratified, but that, if it were not ratified, the United States would proceed to the immediate pacification of the country by military force.

Many good things have been done in connection with the Haitian occupation. No one can dispute it. But I will leave it to you to judge if it is worth the force philanthropy upon a people over the dead bodies of several thousand natives, particularly when there is such a wonderful opportunity for altruism here at home. And, in fact, charity has played a very small part. With regard to the motives in these situations, we may say that there has abided a *sway* of the Monroe Doctrine, dollar diplomacy, and charity, these three, but the *chief* of these has been charity.

In conclusion, we should sweep out of our minds any mystical notions of the inherent righteousness of armed interventions or about the philanthropic reasons for them. These matters are practical matters and should be judged by their results to the people of the United States on a long-time basis in connection with our general foreign policy. The United States turned its back upon the use of force when in the Pact of Paris it renounced war as an instrument of national policy. Undoubtedly in the relations of the United States to the world at large a policy of peace is most economic. This nation has a larger financial stake in world peace than has any other country. It may be that in some cases of intervention against a weaker country the use of force, judged by immediate results, is still profitable. Will not such an intervention, however, greatly impair the influence of the United States in other and commercially far more important sections of the world? If we continue to send troops into Central America how can we consistently remonstrate with Japan for doing the same thing in Manchuria. It would seem to be wiser for our country, guided by its own best interests, to seek the methods of peaceful

national action in the adjustment of disputes on a co-operative basis with Latin America.

LAWRENCE DENNIS.—From the papers just read I have learned that the post-war investments of the United States in Latin America have been unwise and that the bankers, investors, and borrowers are responsible for the unfortunate mistakes made. I had always suspected as much. In these papers two groups of problems seem to require separate analysis; namely, capital exports, as credit and trade phenomena, and the merchandising of securities as a banking function. With regard to national policy, both speakers seem to feel "that there should be no hesitation about preferring intervention to abandonment of legitimate rights and interests." All I have to say about this highly orthodox feeling is that it has animated every nation going to war in modern times.

Now with regard to capital exports, it would have greatly simplified matters had the speakers stated clearly at the outset that they considered capital exports from the United States to Latin America necessary since the war and that they marshalled their reasons for such a belief. Then they might have shown us just how bankers, investors, and borrowers, in the given situation and state of human nature, could have made the capital exports the speakers deemed necessary without producing the evils described.

Let me run over the capital exports problem of Latin America at the close of the war as it appears to me and as it has not been outlined in the papers just read. The war left the Latin American countries gorged with gold and foreign credits as a result of selling at inflated gold prices, exports produced at prices which had not risen correspondingly. A prompt restoration of the gold standard was indicated. For this step, no countries were ever in a stronger position. Considerable gold exports might have followed, due to the necessity of paying investment income to Europeans and because of a desire for more indulgence in foreign imports foregone during the war. Gold exports would have imposed a deflation of internal bank credit and tended to equalize the international distribution of gold. Commercial inventories would have been reduced at marked down prices. Bankruptcies, as in the United States in the deflation of commodity prices of 1920, would have been numerous—more numerous than they were in South America during the same period. Internal prices would have adjusted themselves rapidly to the declining price levels of the gold standard countries. Exchange stability would have been maintained. Speculative real estate booms would have been aborted. Public and private expenditures would have been more modest. At the same time there would have been ample gold to sustain new internal credit expansion for the financing of all appropriate construction, including government public works. Expansion of the plants for producing raw materials could not, however, have been checked and in this fact resides the major argument in favor of such a gold and credit policy immediately after the war.

The course of hypothetical events just outlined, however, would have required a fairly prompt resumption by European investors of their pre-war practice of reinvesting most of their capital income from this quarter. Two factors prevented a return to pre-war normality; namely, the post-war debt

policy of Washington and the aspirations of Wall Street to replace Lombard Street as an international long-term capital market. In parentheses, I here remark, but not attempt to prove in my ten minutes, that our statesmen and bankers have not only smashed Lombard Street, but also broken up over the old capital exports game, and, possibly, before it is all over, many more economic institutions. To continue with the story, it may be that the South American governments sterilized their gold in their banks or currency institutions and progressively from 1920 to 1929 increased internal bank credit. Consequently, the Chilean Government had to borrow American dollars, for the purpose of building schools, balancing budgets, buying British gunboats, or paying salaries to postmen, as you may care to explain it—all in order that there might be made available in England enough dollars to enable Englishmen to discharge war debts to America and also pay for a surplus of American imports. American loans have thus kept suspended the gold standard in South America.

Foreign investments feed dollars into an international pool which is replenished by payments for our imports. From this pool are extracted dollars to pay for American exports and to cancel debts to Americans. As I am neither a Calvinist nor an economist, I have never grasped the importance that is commonly supposed to attach to the exact spot at which dollars are poured into this reservoir.

The triangular movement of American investment funds, through Latin America and Europe back to New York, balanced the international payments of Europe and unbalanced the production of South America as well as the international trade of the world. South Americans are the victims of an unhealthy internal credit structure, of an impossible integration of the internal factors of production, and of price declines caused by overproduction of their principal exports. The world at large suffers the consequences of a prolonged and wholesale falsification of commodity prices and credit values. Price declines due to credit financed overproduction have crippled the purchasing power of South Americans for the manufactures of Europe and America. It should be recalled that our post-war imports from South America have constantly exceeded by about 20 per cent our exports to that region. I find, in the papers just read, no adequate interpretation of the factors I have briefly outlined.

I have two challenges for the speakers and economists in general. First, I challenge them to show how in the present integration of world economy a satisfactory state of trade can be maintained on the basis of an exchange of South American raw materials for canceled coupons of South American bonds held by American or European investors. Second, I challenge them to show how the practice of relending interest to avoid the exchange of goods for paper can be prolonged over any considerable period of time without recurrent collapses of credit and wholesale cancellations of debt such as we now have in progress. I wonder whether economists nowadays ever read Robert Hamilton's reply to Dr. Price on the play of compound interest? I further express the hope that I may live long enough to hear one American economist

adequately capital exports in terms of their effects on the price level in terms of the effects of falling prices on money debts.

For about eighty out of the hundred and twenty years from Napoleon to the present, prices have had a secular trend downwards. From Versailles to the present, from Waterloo to the gold rushes, prices have had this trend. I come away from New York to learn that borrowers, during a period of falling prices, have been unwise and unfortunate. But this is not news. It would have been news had the speakers explained how an average long-borrower can help being unwise and unfortunate during a period of falling prices. It would also have been news had the speakers shown how the uses of credit for specialized production such as six billions of dollars of exports to Latin America in a decade, can ever fail to culminate in a sharp price declines.

It would have been enlightening to have been told either how we can, in the modern world, get on with capital exports or proceed without them. It is feeling that capital exports are anachronisms in the present world, now there are no more frontier countries, now that the industrial revolution is now that *laissez faire* is dead, and now that free trade is as extinct as the Roman Empire. In a world of closed economies, nations in all stages of economic development must pay as they grow.

As for the merchandizing aspect of security financing, Dr. Cumberland talks about the bankers having been "represented by incompetent agents." I contend that the agents who negotiated the bad loans were highly competent because they got what their principals sent them after. I was in Latin America for over a year in 1928 and 1929. I was not competent because I negotiated no loans. I told my employers from the start that all their American loans had to go into default within five years and proved this true to my own, though not to their, satisfaction.

And the president of the reserve bank of a South American country, once in the city of New York, tell a group of bankers that the contemporary loans to his country should be cut in half and that, even so, they would be excessive. Needless to say, his opinions carried no more conviction than mine. I traveled all over Peru, Bolivia, Chile, and both the Argentine and Uruguay. Everywhere I found everyone with whom I talked on the subject was not a blind partisan of the government amazed and indignant at the excesses of the American bankers and the grafting politicians with whom they were co-operating. Decent South Americans were, naturally, as fair as decent New Yorkers against local grafters.

Cumberland's use of the term "fiduciary" in connection with the sale of securities is based neither on law nor on reality. Bankers are merchants in securities who sell on a *caveat emptor* basis. The bankers deceive their customers with half truths, prepared in New York by our ablest lawyers and economists who cabled the agents of the bankers in South America just the data required by these social scientists for the purpose of misleading the American public within the law. The bankers rigged the market for the offering of South American bonds. The expenses and losses of

these market operations were taken out of the money contributed by the victims of such interferences with a free market. In England such operations are legal frauds.¹ In America such operations are not at present legal frauds, though they might be deemed by some courts as equitable frauds if a case were properly presented.

With regard to Dr. Cumberland's suggestion of a private finance clinic to pass on security issues, I advance the following objections:

First, there can be no criteria of scientific validity for the appraisal of securities, other than standards eliminating deceit and fraud. Practising the art of investment is a venture in profit-seeking. Dr. Cumberland says, "American lenders should look to security for their funds and disregard other considerations." But how can they disregard the promised interest rate? And what, pray, is "security for their funds"? As I am not an economist, I do not know. What significance have the criteria for evaluating credit factors mentioned by Dr. Cumberland if one cannot predict the future behavior of prices?

Second, there is no science of predicting the economic future. Therefore, I maintain neither gypsies nor economists should be allowed to sell guesses about the future, as Dr. Cumberland's advisory board would do.

Third, it is the function of government to protect investors against deceit and fraud whether by lies or half-truths. It is the function of capitalists to do their own guessing about the future.

Society must be governed by laws adapted to its mechanisms and not by unrealistic wishes belonging to a world of dreams.

¹*Scott v. Brown*, 2 Q.B. 1892-724. For further cases see *Livermore v. Bushnell*, 8 Hun (N.Y.) 85; *Queen v. Aspinwall*, L.R. 2 Q.B.D. 48 (1876); *Sampson v. Shaw*, 111 Mass 145 (1869); *People v. Ferris* (unreported); *People v. Federated Radio Corp.*, 244 N.Y. 83 (1926).

SESSION ON RECENT CHANGES IN BANKING CENT CHANGES IN THE CHARACTER OF BANK LIABILITIES AND THE PROBLEM OF BANK RESERVES

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The most apparent recent changes in banking, certainly those uppermost in the minds of the banking public and of the newspaper readers, are bank failures and bank mergers. During the past decade (1921-31) a total of over 7,000 banks were reported as having been closed, either temporarily or permanently, on account of financial difficulties. Some 800 to 1,000 of these have since reopened, leaving more than 6,000 net failures, with deposits of over two billion dollars. Bank mergers are a part of the centralization movement of industry which has been taking place in this country since the beginning of the present century, though the pace has been quickened since the War (1919). Prior to the crisis of 1929 the reasons for mergers, except for smaller banks in frozen condition, were largely associated with forces prompting consolidation of banks for the purpose of carrying on broader and larger banking service. During the last two years, however, the bulk of bank mergers, in metropolitan districts as well as elsewhere, have probably been prompted by distress conditions, due first to internal and later to external conditions. As President Hoover pointed out in his Message to Congress, December 8, "a large part of these failures has been caused by withdrawals for hoarding, as distinguished from the failures early in the depression, where weaknesses due to mismanagement were the larger cause of failure."

Current failures and mergers or consolidations are, therefore, based upon common causes. The immediate cause is a lack of liquidity. The bank is unable to meet its liabilities either because it has tied up its resources in nonliquid form, or because miscalculations have been made with regard to cash and credit demands. The result has been the suspension of payments, or the seeking of help from institutions which have maintained a stronger, i.e., more liquid, position. The situation, when too long delayed to solve by independent action, has often led to a change of management and organization.

The dual problem of failures and mergers may thus be approached from two angles: mistakes in management either in the amount and character of obligations or liabilities assumed, or in the method of employing the resources so obtained.

Much has been written about the bank's assets. The commonplace answer to the question of why so many banks have failed lately is the shrinkage in the value of earning assets and their frozen condition, due

chiefly to loans and investments of the security and real estate varieties. But it seems to me that a subject which has not been given its due attention is the analysis of the character of the bank's liabilities in relation to reserves, i.e., primary reserves and other assets which perform or serve the reserve function.

The great bulk of the commercial bank's obligations are the deposit liabilities, and it is the character of these which largely determine (or should determine) the utilization or employment of the bank's resources. If these were better understood it would be easier to make sound judgments in the matter of providing reserves and building up the bank's portfolio. The problem of conversion of funds used to be simple when the character of liabilities was uniform and homogeneous, but today it has become more complex and hence warrants more scientific treatment. It is the purpose of this paper to review the more important and significant changes which have taken place with regard to the bearing which deposit liabilities and reserves may have on the problems of bank failures and mergers, and on sounder bank practice. A further purpose is to examine some recent proposals for bank reform, and in particular, provisions of an official report¹, which if adopted would provide an automatic check on overexpansion of individual bank credit, or at least provide a curb such as does not seem to be present under existing reserve requirements.

History of deposit liabilities and reserve requirements. Until about the middle of the last century the most important form of bank credit or debt (used in the sense of depositors' or borrowers' credit at banks, i.e., bank liability) was the bank note. Indeed, the note issue function was the characteristic function used to identify the banking business. With the development and growth of the use of checks, however, current or cash deposit accounts became more important, and reserve provisions, which had formerly applied to notes and deposits alike, came to be considered a problem in the case of deposits alone; that is, in so far as the ordinary commercial bank is concerned. In our country this separation of treatment occurred in 1887 when the amendment to the National Banking Act made specific provision for a 5 per cent redemption fund to keep the bond-secured national bank notes at parity, and applied the so-called "reserve provisions" to deposits.

Furthermore, deposits under the National Banking system were considered as all of one category (gross deposits) and only a very rough classification of banks was provided, based on their location in financial centers and elsewhere, to allow for the difference in the character of these liabilities and the relative need of their redemption or withdrawal.

Under the provisions of the Federal Reserve Act the same classification

¹ *Report of the Committee on Member Bank Reserves of the Federal Reserve System*, November, 1931.

ities was retained, but a distinction was made between demand and deposits, and different reserve ratios were applied to each. Percentages were reduced, and by the Act of 1917 legal reserves were mobilized and centralized in the Federal Reserve banks, and the present familiar reserve figures were adopted.

Theoretical analysis of reserve requirements and the question of bank identity. Due to the fact that disagreement still exists with regard to questions on why reserves need to be kept by commercial banks, how much in what form, it seems necessary to preface the examination of the ration of our present reserve requirements and proposed changes with a brief theoretical discussion of these matters.

Banks must keep two types of reserves: vault cash and balances with correspondents to meet ordinary cash demands, and cash or credit for maintenance or guarantee of confidence in the bank's credit. It is not always possible to separate reserves into these two categories, but custom and law has established a more or less fixed ratio of reserves in relation to deposits, which has in practice come to be interpreted as adequate in maintaining the depositors' "morale" or confidence in the solvent condition of the bank. With regard to working reserve, banks keep little more than is actually required in the course of their current operations, rely on other institutions for help in time of credit strain and emergency. It is not surprising that banks should nearly always lend "up to the hilt," since "excessive" reserves impair profits and hence the stockholders' interest, and deficient reserves violate legal requirements and impair the people's confidence in the solvency of the bank's credit, and may cause a run on the bank.

The practice of each individual bank lending to the limit permitted by reserve requirements has worked successfully during periods of sound business conditions, but in times of stress, when all banks found themselves in the same extended position, cash resources were not available to meet the critical demands since the legal requirements could not be impaired. The only recourse which banks had under the circumstances was to suspend payments. The necessity of an institution not founded on a profit-making objective, but for the purpose of conserving resources to be made available in such cases, really accounts for the establishment of the Federal Reserve banks. Under this system legal reserve requirements took on a new function; they became a contribution to the resources of the Federal Reserve banks, and the balances kept at these institutions became the price which member banks had to pay for a steady and dependable market for their eligible paper. Eligible paper thus became as good as gold, and a "secondary reserve" made primary reserves usable. The reduction in the reserve requirements was warranted by the fact that mobilization of

reserves made them usable and much more effective than when these were scattered and subject to multiple control.

Theoretical analysis of deposit liabilities. Deposit liabilities determine the degree of liquidity which the bank assets must have for the bank to remain solvent, and also determine the degree to which credit may, with safety, be expanded. Solvency may be maintained in either of two ways: by regulating reserves and other assets with regard to the amount and character of deposits, or by the bank assuming deposit liabilities corresponding to its ability to meet such claims. In practice these cannot be considered separately since they are two aspects of the same problem, but for purposes of analysis they may be considered as alternative methods. If the banker could know accurately when actual cash demands would be made and in what amounts, one of his greatest risks or uncertainties could be eliminated. So far as some of his liabilities are concerned (e.g., capital funds, reserves for dividends, taxes, etc., and borrowings), he knows his commitments, but with regard to others (e.g., deposits), he must depend upon practical experience, rule of thumb methods (e.g., 20 per cent deposit balance requirements), or upon more refined analysis, to learn of the likely or probable demands of his customers. This phase of the problem has been given less attention than have bank assets and further treatment of deposits, therefore, seems warranted.

Concretely the question of liquidity may be stated as follows. What does the banker know about his status before he begins operations at the beginning of the business day? Which of the following items can be exactly forecast with regard to changes if no new business is undertaken:

Cash	No	Capital and surplus, etc.....	Yes
Loans	No	Acceptance liabilities	Yes
Investments	Yes	Deposits	No
Customers' acceptance liabilities.	Yes	Bills payable	Yes

He knows the amount of capital funds in the business and his liabilities on acceptance accounts and his borrowings, and he knows his investments in bills and securities, etc. He knows on the basis of previous operations what loans are due today, but since they may be prepaid or renewed this item is subject to change, and with it the items "cash" and "deposits." Neither does he know whether deposit liabilities will be drawn down or built up, nor whether cash will be increased or withdrawn as a result of previous loan operation, cash lodgments, or of other forces. If, however, he can by analysis determine the character of deposits so as to be able to forecast the probable need for cash, this relationship will be established, and he can solve his loan and investment problems much more accurately.

While developed for different purposes the following classifications may serve to throw light on the character of the chief class of bank obligations.

These classifications will be treated *seriatim*:

I. This general economic classification has no particular bearing on our problem since special and safety deposits do not involve the question of reserve and has been included merely for purposes of comprehensiveness. Our interest lies solely in general deposits.

II. The separation of deposits into demand and time was initiated in the Federal Reserve Act, and though the distinction is based upon logical differences in the activity of the two types of deposits and the corresponding need of reserves, it has become much blurred in practice due to the character of time deposits.

For example, a further analysis of time deposits discloses three subdivisions, viz.: the more or less permanent accumulation of personal re-

CLASSIFICATION OF BANK DEPOSITS ACCORDING TO TYPES

I Economic	II Federal Reserve Act	III C. A. Phillips	IV J. M. Keynes	V Comptroller of Currency	VI and VII Individual Bank Analysis	
					Industry, Business or Occupation	Size
General	Time	Primary	Savings income	Individual (in- cluding corporation)	Farmer Manufacturer Merchant Security broker	Small
	Demand	Derivative	Business	Bank Government (or public)	Transportation and shipping Professional	Medium Large
Special Safety						

serves, or savings deposits *par excellence*; sums temporarily accumulated by customers pending future permanent investment; and idle business funds not currently needed in the business of the owners.

The significance of this subclassification is that it shows the unlike character of the component parts of this single category, and hence the economic difficulty of legal definition of time deposits for purposes of reserve requirements. In periods of stable business conditions these accounts are less active than demand deposits, hence a lower reserve proportion is justified, but during periods of transition they tend to shift markedly in their activity and character and the classification becomes inaccurate.

In times of depression savings are drawn upon to mitigate personal hardships arising from decreased incomes, and for self-protection in case of bank "runs"; temporary accumulations may be partly drawn upon, but these may also be increased pending clearer indications of the form and direction which investments should take; and idle balances also tend to grow since business operations are curtailed. If business recovery is presaged by relative attractiveness of long-term investments, temporary

savings are drawn down, and as business picks up, demands for accommodation cause bank credit expansion, chiefly in the form of demand deposits, and may result in a transfer of idle business funds to demand deposits.

III. The analysis of primary and derivative deposits, as made by C. A. Phillips, is based upon the difference of purpose in establishing deposit credit, but is significant in that it throws light upon the stability or activity of the accounts. The assumption made is that primary deposits are lodgments of cash or their equivalent, either as savings or as service accounts, whereas, derivative deposits, as their name suggests, are derived from credit operations. The classification roughly parallels the time and demand classification, and the same qualifications must be made with respect to the heterogeneous character of primary deposits and of their alleged stability.

IV. J. M. Keynes has analyzed bank deposits under the suggestive three-fold division of savings, income, and business deposits. In this classification, savings and income parallel primary deposits (column III), but include part of both time and demand deposits (column II), whereas business deposits are chiefly derivative and demand. This classification has the merit of characterizing the chief types of commercial banking business; viz., service accounts and business or commercial credit accounts.

The individual income and savings accounts typify the first kind of banking function. Regular deposits and withdrawals are made when salaries or wages are paid (or when goods are sold), and are checked out to meet current expenses, any excess remaining being placed in savings accounts until the accumulation is sufficient to invest. Such business is regular in times of business stability and need cause the bank no great difficulties or danger; there is actually little need for reserve, since deposits and withdrawals practically compensate each other. Only in times of uncertainty does the bank need extra large reserves.

Business or commercial accounts involve the creation of bank credit. They result from borrowings by corporate and other enterprises which are negotiated through an exchange of business paper for bank credit. (*Vide* Phillips' derivative deposits.) The bank's reserve problem is largely concerned with these, since business accounts are fluctuating and active, highly sensitive to slight changes in business conditions and in public confidence. Borrowings are used to finance both expansion of operations when prospects appear to be favorable and for the purpose of preventing loss or protecting business solvency in times of distress. Cash reserves are needed to meet increased hand-to-hand demands when business is active, and may be needed also to satisfy propensities for hoarding when confidence in credit becomes impaired. It is against such contingencies that banks must provide reserves, and if credit has become inflated its reserve position may be sorely tested.

Unfortunately bank statistics are not adequate in giving expression to the quantitative relations involved either in Keynes' or Phillips' groupings.

V. The reports of the comptroller of the currency call for a division of gross deposits into individual, which includes corporate, government or public, and bank. This classification has practical uses since business, bank, or public demands may show individual and peculiar variations.³ It would be more valuable, however, if personal and corporation deposits were separated, and if all individual deposits could be divided into classifications indicating the use or purpose of the accounts.

VI and VII. With regard to the individual bank's own analysis, deposit liabilities based on the size of accounts, and on industrial, occupational, or geographical grouping is particularly valuable in determining factors of profit and safety. A few large accounts acting in concert might jeopardize the bank's liquid condition. At the other extreme, a great bulk of small accounts may be diversified and safe so far as withdrawals are concerned, but may be profitless, or even involve the bank in loss, unless service charges are made. With regard to diversification of accounts on the basis of businesses served, it is as dangerous for the bank to confine its service to one industry as for a farmer to venture all his resources on one crop.

The general purpose of such quantitative and qualitative analyses of the deposit liabilities described is to separate into groups those types of liabilities which have like characteristics. Points of chief interest to bankers are: classification of accounts of depositors or customers likely to be variable, uncertain, and active; sufficiently diversified accounts to permit one class of uncertainties to offset or counterbalance uncertainties in other classes (see columns V and VI); and the size of the accounts, especially if large demand accounts happen to represent fluctuating industries (column VII). Legal classifications (columns II and V) do not show the banker what he needs to know. Other classifications, such as are suggested by Phillips, Keynes, and the bank account analyses, promise results as a basis for formulating sound loan and investment policies.

A general qualification should be made with respect to the above classifications. No arbitrary line can be drawn between the stable and unstable accounts, nor even perhaps between active and inactive accounts. Such a line becomes blurred in practice even when carefully defined by law (e.g., time and demand deposits) or when developed through custom (e.g., savings and commercial accounts). In other words, the application of such an analysis and classification is definite only during stable conditions. In times of emergency a reclassification becomes necessary since, for example, those accounts considered most stable (proceeds of which

³ A qualitative and quantitative analysis of deposit liabilities might have forestalled the embarrassment faced by the Foreman-State Bank of Chicago in June, 1931.

have been invested in slow assets) may be the first ones to be withdrawn. It is not always the accounts that are usually regular which can be counted upon to continue this regularity.

While such an analysis as this may not always prove adequate as a basis for the conversion of bank resources, because emergencies do arise, it may nevertheless be maintained that it serves as a more adequate guide to loan and investment policies than no analysis at all, and, if universally adopted, it might have exercised some influence in forestalling banking crises, or at least have mitigated their consequences.

Secondary reserves. The thought developed in the preceding section is that the reserve needed by a bank is a function of the variability in the volume and activity of its liabilities, and of the general liquidity of its assets. Since stockholders' claims are fixed, so long as the bank is a going concern, no liquid assets need be kept against this class of liability, but deposit liabilities are heterogeneous in character and often variable in amount and activity. Therefore, against these the bank must hold appropriate assets so as to be able to meet demands when they are due. It is maintained that cash is merely the most liquid asset which the bank possesses and that the whole hierarchy of assets may be arranged in the order of their liquidity. Cash is, however, the only asset which under all conditions satisfies customers' claims. Bank balances are held elsewhere to provide funds where needed, and to satisfy legal reserve requirements. Together with vault cash, these constitute the bank's working reserve and under ordinary circumstances they should suffice to take care of all cash demands.

In times of extraordinary demands, however, with reserves "fixed" by law and custom, the burden of bank liquidity is shifted from primary reserves to other assets which can be quickly converted into cash, and it is here that we find the most important clues of the bank's ability to meet requirements of contingent demands. Indeed, if adequate facilities exist for liquidating these so-called "secondary reserves," the need for primary reserves varies inversely with the strength of these accounts, i.e., with large secondary reserves, primary reserves may safely be reduced, but the latter need be strong indeed with few or no secondary reserves.

This point may be illustrated by the table on the following page which shows the older practice of how banks varied their reserves during periods of good business and bad, and how the adjustment must be made today in order to maintain liquidity.

With regard to the forms of bank earning assets, there are, roughly speaking, three categories from which to choose: open market loans (bills, commercial paper, and call loans), investments (government and other), and advances to customers. Since, as a rule, there is involved in these an inverse relationship between profit and liquidity, bankers are faced with

ADJUSTMENT OF BANK RESOURCES TO MAINTAIN LIQUID CONDITION

	Credit Conditions		
	Good	Bad	
Variable reserve ratio.....	10	15	where bank is dependent upon its own operations
Fixed legal and actual reserves.....	10	10	
Earning assets:			
Secondary reserves.....	40	60	where special facilities exist for ready liquidation of secondary reserve
Investments and slow loans.....	60	40	

a constant necessity of weighing one factor against another, and the proportions between these three categories undergo wide fluctuations as the factors of liquidity and profit become dominant or recessive in their relative influence.

FACTORS INVOLVED IN CHOICE OF BANK EARNING ASSETS

	Business Conditions	
	Danger	Safety
	Speculation Securities sold at loss Loans frozen or slow	Sound business Securities marketable Loans self-liquidating
Open market loans.....	Order of Liquidity 1	Order of Profitability 3
Investments.....	2	2
Advances to customers.....	3	1

Within recent years standards of bank practice have been developed around that part of the bank's earning assets designated as "secondary reserves." It is stated that a bank is as liquid as are its secondary reserves, and efforts are made to define these qualitatively and quantitatively. Qualitatively they consist of any asset which can in practice be readily (immediately) converted into cash without substantial loss through shrinkage. Falling in this class are (as usually enumerated) eligible paper, prime commercial paper, short-term government securities, bonds, notes, and certificates, and AAA listed securities. Quantitatively, amounts are related to deposits even to the extent of determining separate ratios for each major class; for instance, if legal primary reserves against demand and time deposits are 10 per cent and 8 per cent, secondary reserves should be, say, 25 per cent and 15 per cent.

A conventionalized set-up such as the one on the next page may serve to illustrate the relationship of assets to liabilities.

A word of caution is required with regard to the use of these formulae. In the first place, the line of demarcation between secondary reserve and other assets is arbitrary and relative, and though a well-managed bank should separate these accounts, even though the two may overlap considerably, it should be realized that assets which may be considered liquid

Assets:		
Fixed—Building, etc.		
Federal Reserve bank stock.....	5*	
Loans and other investments.....	37	} Earning assets
Secondary reserve.....	40	
Cash reserve (including float).....	18*	
	<u>100%</u>	
Liabilities:		
Deposits—Demand.....	50	} Credit
Time.....	35	
Capital stock, surplus, and undivided profits.....	15	} Equity
	<u>100%</u>	

* Little or no earnings.

at one time may be slow or frozen under changed conditions. The adjustment of internal bank policies to cyclical, irregular, or sporadic fluctuations, or even secular changes, is not sufficiently understood to warrant more than arbitrary standards. It is gratuitous to state that conservative practice would exclude all assets not thoroughly gilt-edge, even in times of crisis, since it is at these times when liquidation is required.

In the second place, the adjustment of assets is an individual bank problem into which many variables enter, e.g., the location of the bank, the composition and character of its liabilities, capital funds, local demands for credit, familiarity, and traditional practice with regard to specialized loans and investments.

Operation of reserve requirements, 1914-31. In the light of the above theoretical analysis we may proceed with the examination of the operation of reserve requirements during the period 1914-31.

The following table presents, in summary form, the legal require-

CHANGES IN LEGAL RESERVE REQUIREMENTS

	National Banks prior to Federal Reserve Act			1914-17*	Federal Reserve Member Banks 1917			
Classification of Banks	Total reserve required vs. total net depts.	At home	At home or on deposit elsewhere		Reserves against		At home	At Federal Reserve Bank
					Net deposits	Time		
Central Reserve city	25%	all	none		13%	3%	none	all
Reserve city.....	25%	1	1		10%	3%	none	all
Country.....	15%	1	1		7%	3%	none	all

* Transition period when reduction in ratios was gradually effected and location of reserve changed.

Calculation of net deposits subject to reserve has varied from time to time. At present they include total demand deposits of individuals, corporations, etc., plus the excess, if any, of demand deposits due other banks over items in process of collection and funds on deposit with other banks. United States government deposits have been exempted from reserve requirements since 1917.

Vault cash eligible for reserve excluded national bank notes, federal reserve notes and federal reserve bank notes prior to 1917. Since 1917 no vault cash has been eligible as reserve

nents for national banks before the Federal Reserve Act and for member banks thereafter (as ultimately determined by 1917).

Operating effects of changes in reserve requirements. The effects of legal changes in reserve requirements since 1914 have been: to reduce effective reserves; to mobilize and concentrate legal reserves in the reserve banks; and to effect a distinction between time and demand deposits.

TABLE I
STATISTICS OF ALL MEMBER BANKS, 1914-31, IN REGARD TO RESERVES,
DEPOSITS, AND EARNING ASSETS AS OF DECEMBER 31*
(Expressed in dollars—00,000,000 omitted)

	1914	1917	1920	1923	1929	1930	1931
I. Reserves							
1. At F.R. banks (legal).....	.2	1.4	1.7	2.4	2.3	2.4	(9/29) 2.3
2. Vault.....	.6	.7†	.6	.5	.5	.5	.5
3. Due from other banks.....	1.1	2.1	1.5	2.1	2.1	2.4	1.9
4. Total working reserve funds.....	2.0					5.5	4.7
II. Deposits							
5. TOTAL.....	8.3	18.6	24.2	39.0	38.0	37.1	33.4
6. Demand.....	5.1	11.1	14.6	21.1	20.4	18.7	17.5‡
7. Time.....	1.2	3.1	6.1	13.4	13.2	13.5	12.9‡
8. U. S. Government.....	.07	.6	.3	.2	.1	.2	—
9. Due to banks.....	1.8	3.6	3.0	4.2	4.1	4.5	—
10. Total net deposits subject to reserve requirements.....	7.4	15.6	21.5	33.3	33.0	32.5	30.5‡
11. Bills payable and rediscounts.....	.1	.7	3.0	1.1	.8	.3	.4
III. Earning Assets							
12. TOTAL.....	8.5	16.9	25.5	35.8	35.9	34.8	33.0
13. Loans**.....	6.4	12.3	19.5	25.1	26.1	23.8	20.9
14. Total investments.....	2.0	4.5	5.9	10.5	9.7	10.9	12.1
15. U. S. securities.....	.7	1.7	2.6	4.3	3.8	4.1	5.5
16. Other securities.....	1.3	2.8	3.3	6.2	5.9	6.8	6.6
17. Eligible assets (earlier figures not available).....	—	—	—	—	7.6	7.0	7.9
18. Total loans secured by stocks and bonds.....	—	—	—	10.1	10.5	9.7	8.0
**13. Loans (analysis of detail)				(0,000,000 omitted)			
(a) To banks:.....				.53	.71	.63	.59
secured by stocks and bonds.....				—	—	.31	.31
otherwise secured and unsecured.....				—	—	.31	.28
(b) To customers:.....				21.46	23.19	21.00	18.71
secured by stocks and bonds.....				7.34	8.48	7.94	6.84
secured by real estate.....				3.12	3.19	3.13	3.14
otherwise secured and unsecured.....				10.99	11.55	9.83	8.72
(c) Open market loans:.....				3.15	2.24	2.23	1.56
bills.....				.21	.29	.37	.33
commercial paper.....				.39	.29	.36	.29
street loans.....				2.55	1.66	1.49	.92

* The above data are taken from the *Annual Report of the Federal Reserve Board for 1930*, pp. 94-95, except for 1931, which were taken from *Federal Reserve Bulletins* for November, p. 611, and December, pp. 664, 698, and 699.

† June 20, 1917; amount reduced to .5 for December 31.

‡ Average daily for September.

Although reserve requirements were designed to change directly with the deposit liabilities of the member banks, results show that they have neither kept step with regard to the volume of total deposits, nor to their use, or turnover. In fact during the period considered, 1914-31, the lack of adjustment has been shown by an actual relative decrease in reserves, both legal and discretionary, and a lack of current adjustment to fluctuations in the use of bank deposits.

TABLE II
OPERATIONS OF ALL MEMBER BANKS AS REFLECTED BY SELECTED RATIOS, 1914-31
(Year and figures except for 1931)*

	1914	1917	1920	1923	1929	1930	1931
<i>I. Reserves</i>							
Legal + vault (1+2)							
1. <u>Total net deposits (10)</u>	13.5	14.7	11.3	8.9	8.9	9.4	9.8
Total working reserve (4)							
2. <u>Total net deposits (10)</u>	28	—	—	—	—	16.1	15.4
<i>II. Deposits</i>							
Time deposits (7)							
1. <u>Total net deposits (10)</u>	16.5	20.1	28.8	40.3	40.0	41.5	42.3
<i>III. Earning Assets</i>							
Investments (14)							
1. <u>Total earning assets (12)</u>	24.5	27.1	23.1	29.3	27.0	31.3	37.0
U. S. secs. + O. M. loans (15+13c)							
2. <u>Total earning assets (12)</u>	—	—	—	20.8	16.8	18.2	21.6
Eligible assets (17)							
3. <u>Total earning assets (12)</u>	—	—	—	—	21.2	20.1	24.0

* The data used is taken from Table I and the numbers in parentheses refer to items as enumerated.

The reduction in the legal minimum reserves has had no significant effect with regard to liquidity since these can in no case be impaired. (Note experience of national banks in the panic of 1907.) The *Report of the Committee on Member Bank Reserves*³ goes so far as to state that it is not "the purpose of legal requirements for reserves to insure the liquidity of individual member banks, nor that it is possible for legal reserve requirements to accomplish this purpose."

³ Report referred to in the introduction and analyzed in concluding part of this paper.

es on vault cash show that member banks have not increased compensate for the reduction in legal minimum requirements, as effected when vault cash was removed from the discretionary reserve

It was the purpose of this provision to concentrate gold holdings serve banks, and this was accomplished, but it also opened the way gradual diminution in actual reserves. Were the previous provision applied today the member banks would be required to hold some million dollars more than they now hold as vault reserve. (This would be borrowed from the Reserve banks and would form the basis stronger credit control both by modifying individual bank policy

TABLE III
RATIO OF BANK CAPITAL TO DEPOSITS FOR ALL MEMBER BANKS, 1920-30*
(Expressed in billion dollars)

	Total Deposits	Capital Stock	Total Capital Funds	% Capital Stock to Deposits	% Capital Funds to Deposits
	33.4	2.5	6.3	7.6	19.0
	37.1	2.6	6.3	7.2	17.0
	38.0	2.7	6.5	6.5	17.1
	39.0	2.4	5.7	6.3	14.7
	36.6	2.3	5.3	6.4	14.6
	34.5	2.2	4.9	6.4	14.3
	34.2	2.1	4.6	6.1	13.9
	32.3	2.0	4.5	6.3	14.0
	28.5	2.0	4.3	7.0	15.3
	27.2	1.9	4.3	7.0	16.0
	25.2	1.8	4.0	8.0	16.5
	24.2	1.7	4.1	7.4	17.0

370 capital funds were approximately equal to deposits; at the beginning of the century capital funds were about 40%; during the war and after they had dropped 60%; in more recent time the equity of the owners has grown still thinner, until by proportions for all member banks were 4.5 billion capital funds to 34.2 total deposits. Lately, due to consolidations, failures, etc., the proportion of ownership has again increased so that they are now as large as they were a decade ago.

providing ammunition for the Reserve banks.) Furthermore the in removing vault cash from reserve requirements has not worked well between banks. The *Report of the Committee on Member Banks* shows a reduction on the average of vault cash from 8.5 per cent to 1.5 per cent from 1918 to 1930; the reduction being much larger in the case of city banks than in country banks.

economy of the total working reserves, legal and discretionary, is illustrated by comparing figures of all national banks, 1913 and 1930. In the former year a total of 34 per cent reserves to deposits (consisting of 28.5 per cent due from banks, plus 18.5 per cent vault cash) was reduced in the latter year to 20.7 per cent (consisting of 12.8 per cent due from banks, 2.0 per cent vault cash, and 6.4 per cent in Reserve banks).

1914 to 1931 member bank reserves, including vault cash, in-

creased from 1.8 billion to 2.9 billion dollars, whereas total net deposits increased from 7.4 billion to 32 billion dollars, representing a decline in reserve ratio from 18.75 per cent to 9 per cent. While this increase in expansion in credit was based upon huge imports of gold, it was made possible by a progressive reduction in effective requirements for member bank reserves by the provisions of the Federal Reserve Act, but more especially by the amendment of the Act in 1917. According to the computations of the Committee on Member Bank Reserves (page 9) member banks would now be required to hold 18.75 per cent of 32 billion dollars, or 4.4 billion dollars reserves, if the vault cash reserve requirement of the national banks prior to 1914 were still in force. This amounts to 1.5 billion dollars more than they now have. The *Report* also states that

TABLE IV
COMPARISON OF ELIGIBLE PAPER TO TOTAL LOANS, DISCOUNTS, AND
INVESTMENTS OF NATIONAL BANKS
(Expressed in million dollars)
From Comptroller of Currency Reports

Fis. Yr. Ending June 30	Total Loans Discounts and Investment	Tot. Elig. Pap. Plus U. S. Securities	% of Total
1923	16.8	6.2	37.0
1924	17.1	6.0	35.1
1925	18.4	5.9	32.3
1926	19.2	5.9	30.9
1927	20.3	5.9	29.3
1928	22.2	6.2	27.9
1929	21.4	5.8	27.1
1930	21.8	5.5	25.1

about one-half of the decrease (1.5 billions) reflects the removal of vault cash from required reserves in 1917, while the remainder reflects the lowering of reserve percentages, and the rapid shift from demand to time deposits.

These figures show that in practice banks stick very closely to the minimum requirements established by law and actual operating needs for till money and payments of balances through clearings. The explanation and justification of this practice is found in the improved facilities under the Federal Reserve system for supplying cash and credit to members, if and when accommodation is wanted.

Another factor effecting a reduction of the reserves has been the shift from demand to time deposits. Though the growth in time deposits can in large part be accounted for by an absolute increase in new savings and by an acquisition of this type of business which might otherwise have gone to savings banks, there is evidence to show that reclassification of deposits has been effected so as to evade legal reserve requirements. The *Report on Member Bank Reserves* deals at length with the methods em-

employed in effecting a reclassification of demand deposits (with their 7 per cent, 10 per cent, and 18 per cent requirements) so as to bring these within the legal definition of time deposits (with 8 per cent reserve requirements). The figures for time deposits show that these have progressively increased from 17 per cent of the total net deposits in 1914 to over 40 per cent in 1931.⁴

Failure of reserves to correspond to activity of deposits. The lowering of reserves in relation to the volume of deposits has been accentuated by the fact that the turnover of deposits has greatly increased since 1914, and especially since 1925 to the year 1930. No account has been taken by the legal provisions of the activity of deposits as such. It was assumed that a classification of banks according to their location in financial centers and in the country, and a distinction between demand and time deposits, would cause reserves to vary in direct relation to the change in character and volume of business demands for credit, an assumption not verified by experience. It is well known that short-time fluctuations in industry, trade, and finance are much more closely correlated with changes in bank debits than with the volume of bank deposits. Statistical studies by Carl Snyder, Warren M. Persons, and others have confirmed this fact. It follows that if reserve requirements are to reflect fundamental changes in the demand for bank credit, account should be taken of the activity of deposit accounts as well as of their volume. The evidence presented in the *Report of Member Bank Reserves* (pp. 9 and 11) on this point is convincing.

This report contains an instructive chart covering the period 1924-30 showing the relationship between member bank reserve balances at the Federal Reserve banks; member bank net deposits, indicating the volume of credit demand; and total debits, representing the turnover or activity of deposit accounts. These curves show legal reserves fluctuating roughly with net deposits, but indicate a very crude and inadequate relationship to total debits or activity of accounts, thus bringing out clearly the failure of member bank balances to reflect fundamental changes in the demand for credit accommodation. For example, a shift in balances from country to city banks in 1924, on account of the inactivity of business in the interior, caused increase in reserve requirements from 7 per cent to 10 per cent or 18 per cent, whereas, with the recovery of business in the interior in the two years following, reserves were withdrawn from cities, thus decreasing the reserve requirements on such withdrawals from 10 per cent and 18 per cent to 7 per cent.

In 1928-29 extraordinary demands for funds in the speculative secur-

⁴For a comparison of growth in time deposits plus savings in savings banks and demand deposits see table in W. R. Burgess' *The Reserve Banks and Money Markets*, p. 7. In effect the figures show that by 1926 savings had regained their "50-50" pre-war relationship.

ity markets were met without any increase in reserve requirements. In fact the legal requirements were about 75 million dollars lower in September, 1929, at the peak of the stock market boom, than in December 1927, though broker loans increased in this period by over 4 billion dollars, and the heavy demand for funds was further evidenced by rates charged for call loans which reached a monthly average high of 10 per cent. Corporations and other non-banking lenders made huge direct loans to the markets, yet with no perceptible effects on the volume of bank deposits. But the activity in deposit accounts increased with great rapidity, and had this been taken into consideration increased reserve requirements would have acted as a powerful restraint against the unsound credit which was developing at that time. Since the depression reserves have continued relatively high despite the extraordinary decline in total bank debits.

Effect of reserve requirements upon bank assets, 1914-31. Along with changes in bank deposits have occurred corresponding changes in the character and amount of bank assets. These have also been affected by the revisions in reserve requirements. The reduction of reserves needed (together with the increased amount of bank credit based upon gold imports and reserve bank credit) has released resources more than adequate to serve commercial demands of the banks' own customers. The excess has found its way into non-commercial uses, and has also been a factor in prompting commercial banks to diversify their business by undertaking new functions. During this period (1914-31) bankers felt warranted in treating the growing proportion of the total deposits consisting of time or savings accounts (16 per cent to over 40 per cent), together with their proprietorship capital¹ as semipermanent funds, available for making loans and investments of longer duration and less liquidity than those of a strictly commercial character. A comparison of the quantities "investments plus advances to customers on securities and real estate" and the sum of "capital funds plus time deposits" shows that non-commercial advances have just about kept pace with the increase in semipermanent funds down to 1929, and with the corresponding decrease occurring since. This general statement is substantially correct even though the comparison is subject to certain qualifications, e.g., "street loans" are excluded on the ground that they represent legitimate demands of dealers in securities for short-term working capital; a portion of collateral loans to customers used for commercial purposes should also be excluded; bank building and equipment, etc., should be included because these tie up funds; and on the other hand, time deposits are not so semipermanent in character. On the basis of their commercial and non-commercial business, member banks in the aggregate have been liquid

¹ See Table III.

throughout the period since their demand liabilities have by and large been matched by their current funds. This condition of liquidity, adequate during a period of confidence, does not necessarily prove so in times of stress, and the position of the bank's "secondary reserves" should be examined as a further test of liquidity. In other words, what proportion of the bank's assets, commercial and non-commercial, are available to meet contingent demands for cash? Highly liquid loans and investments should be separated from assets which are slow or likely to become frozen. The ratios in Table II, i.e., United States securities plus open market loans, and of eligible assets to total earning assets, show that a fifth or more of bank's earning assets are readily convertible into cash or credit either in the open market or at the Reserve banks. Complete figures are available only for the past few years but the trend shown in the table for national banks (Table IV) indicates that secondary reserves did not keep pace with the increase of total earning assets, and that by 1929-30 the low point of secondary reserve strength was reached. The evidence seems clear that bank funds were utilized to an increasing extent in slow and non-commercial purposes.

The degree to which eligible paper was used for the purpose of conversion into primary reserves is shown in the borrowings and rediscounts at the Reserve banks (item 11, Table I). This item has been reduced from 1.1 billion dollars in December, 1929, to about 250 thousand dollars in the summer of 1931. (Since the fall of 1931 there has been an increase.) Compared with 3 billion dollars in 1920 this would seem to indicate great latitude of borrowing capacity, hence a high degree of liquidity. The progressive decline, however, in the proportion of eligible paper since that time, and until 1931, makes one pause at the inference. (See Table IV on National Banks, 1928-30.) In fact many writers during this period expressed apprehension as to the unfavorable significance of this development. Furthermore borrowings and rediscounts are complicated by gold movements. Huge gold imports during this period made member banks less dependent upon reserve bank credit in order to maintain their own liquidity, but it would be hazardous to count upon a continuation of this condition as a source of supply of reserve assets.

Even if we were to admit the satisfactory liquidity of the banking system the failure of several thousand individual banks would be no anomaly. The liquidity of the unit bank is an individual problem, or at most a group problem where common factors bear alike upon all of the members of such a group. Differences exist between banks. Some bankers are conservative, others adventurous; some manage their affairs with a narrow, meticulous, specialized outlook, while others adjust their business to general economic movements and take into account cyclical, secular, and other fluctuations. By and large, bankers have not yet been

fully educated with respect to the importance of eligible assets as secondary reserves. Too many of them still venerate and adhere to the traditional reserve ratio as the final test of liquidity. Yet the last weakness to be shown in the bank's affairs is the impairment of the reserve ratio. Statements of banks just prior to failure never indicate lack of liquidity, if this letter-of-the-law test be applied. The obvious explanation is that when impairment occurs, immediate correction must be made or the bank must cease operations. The failure of practice with regard to secondary reserve provisions makes reliance upon primary reserve regulation necessary. Any effort, therefore, which approaches the problem of bank liquidity from the point of view of affecting the reserve ratio is taking a step in the right direction for reforming our present banking weaknesses.

Proposals to correct the weaknesses of the banking system. Proposals to correct the weaknesses of the banking system are both remedial and preventive. Some plans overtly recognize that we are caught in a paralyzed condition and suggest ways of getting out of the predicament others are designed to strengthen the machinery so as to prevent a recurrence of the situation.

Among the various remedial measures proposed are those sponsored by the administration (utilizing existing institutions and providing new ones) to thaw out frozen assets of banks and other institutions, re-establish confidence, and thus "liberate working capital" so that it can be put to work. Particularly apropos are the following: the establishment of the National Credit Corporation, set up after the British crisis (October 6, 1931); the system of home loan discount banks (recommended November 14); modification of the Reserve bank eligibility restriction "during the emergency" without lowering "the standards of the system" authorization of the Federal Reserve banks to "make available quickly to depositors some portion of their deposits in closed banks, as the assets of such banks may warrant"; and the creation of a Reconstruction Finance Corporation modeled on the former War Finance Corporation and of mortgage discount banks, to make advances to agricultural credit agencies and to established industrial and financial institutions not served by the National Credit Corporation.*

Other proposals of the preventive character recommend further government financial aid by treasury subscription of additional capital to the Federal Land Banks; measures of enlarging membership in the Federal Reserve system; improvement of banking laws; investigation of the need for separation between different kinds of banking; and an enlargement of branch banking under proper restrictions.

With regard to remedial measures few will deny that some action

* President's Message, December 8, 1931.

ould be taken. Many of these proposals have distinct merit, but in ministering a remedy care must be taken not to create new weaknesses. wish to single out for brief consideration the proposal to modify eligibility requirements. Your attention has already been called to progressive decline, down to 1980, in the proportions of eligible paper held by national banks (see Table IV). This condition signifies that these banks are becoming less and less liquid so far as resort to Reserve bank resources were concerned, and that they were depending for liquidity more and more upon the organized markets for securities and real estate mortgage paper. The McFadden Act of 1927 aggravated the condition. The question may well be asked whether or not further liberality and encouragement in legal permission to lend on and invest in securities and real estate paper may not aggravate the situation rather than ameliorate it. The question is raised not because it is believed that some such measures may not be warranted to extract us from the predicament in which we now find ourselves in, but merely to point out the possibilities of inflation if such measures should become a permanent fixture. The McFadden Act liberalized investment and loan provisions. If Lombard loans had at that time been eligible for discount at the Federal Reserve banks, could not the banks have had even larger assets to shrink in value and thus become frozen, materializing in more embarrassing failures and difficulties, and leading to distress mergers? A saving feature of the proposals to establish such institutions as the National Credit Corporation, the Reconstruction Finance Corporation, and the Home Loan Discount Banks, is that the non-commercial resources of embarrassed institutions may be liquidated without resort to the Federal Reserve banks, and when the need for these facilities ceases these organizations will die a natural death. Efforts to modify eligibility requirements for discountable paper at the Reserve banks should be carefully investigated. Much may be hazarded in weighing down our system of commercial bankers' banks with the burden of financing investment paper. The eligibility of government securities is probably safe in view of the highly developed market for these now in existence, but until the markets for other non-commercial paper become more stable and reliable than they now seem to be, the risk of including them in the category of eligible assets is probably greater than the advantages to be gained.

Analysis of the Report of the Committee on Member Bank Reserves. With regard to preventive measures proposed to correct the weaknesses of our banking system only one will be considered in this paper; viz., the proposals of the Committee on Bank Reserves of the Federal Reserve System which submitted a report in November, 1931, recommending changes in the member bank reserve requirements as now provided for Section 19 of the Federal Reserve Act and Regulation D of the Fed-

eral Reserve Board. This report is not an outgrowth of present depression conditions, but it has a direct bearing upon the liquidity condition of commercial banks.

I have reserved the Committee's *Report* for consideration at the end of the paper because I believe that the ingenuity of the proposed modification can be better understood and appreciated after the presentation of a theoretical treatment of the problem of bank liquidity and an analysis of the operation of the reserve requirements.

It is the opinion of the Committee that the present system of legal reserve requirements for member bank reserve is not effective, that since its inception in 1914 "it has not operated to relate the expansion of member bank credit to the needs of trade and industry" (which is said to be the chief function of reserves); nor are the requirements equitable and fair "as between individual member banks and groups of member banks and they do not adequately take into account genuine differences in the character of banking in which a member bank may be engaged."

The Committee *Report* contains data supporting its claim that "since 1914 and especially since 1922 the proportion of primary reserves held by member banks has steadily declined in relation to the volume of member bank deposits and to their activity." This relative decline in reserves, they show, has been due to defects in the definition of reserves, in the method of determining liabilities against which reserves must be carried, and in the classification of banks and of deposits for reserve purposes. These points have been treated above and need not be elaborated upon here.

After making futile efforts to frame provisions designed to correct existing defects through modifications in classification of cities and of deposits subject to reserve (including more stringent definitions of time deposits) the Committee finally resorted to an entirely new approach to the reserve problem.

Instead of attempting a complicated analysis of bank deposit liabilities⁷ defining these with regard to the necessity of reserve protection, the Committee abandons all classifications and provides a simple formula for changing required reserves directly with fluctuations in the volume and activity of deposit accounts.

Specifically the plan proposes the following:

1. Reserves of member banks shall be determined on the basis of total volume of deposits irrespective of the locality of the bank and without distinction between time and demand deposits, and the activity of dollar turnover of deposits.

⁷ See p. 5 of this *Report*.

⁸ The individual bank would nevertheless be interested in the classifications presented above, p. 7, since they indicate diversification of risk factors.

2. That required reserves be computed by the formula: 5 per cent of the actual net deposits held at the close of the preceding day, plus 50 per cent of the average daily debits or charges made to these accounts on the books of the bank during the eight weeks preceding the computation period. In no case shall the total reserve requirements be in excess of 15 per cent of a bank's gross deposits.

3. The definition of reserves includes cash in vault to the extent of not more than one-fifth in the case of banks located in the vicinity of Federal Reserve facilities, and not more than three-fifths in the case of other banks.⁹

4. Deposits are defined as net deposits obtained by deducting from gross deposits balances due from other members, checks in process of collection and other cash items payable upon presentation. United States government deposits (exempt since 1917) shall be subject to reserve requirements like any other deposits.

The provision requiring reserves to vary directly with the volume and velocity of credit demands seems revolutionary, but it has the merit of going right to the root of the matter instead of relying entirely upon indirect and roundabout discount and open market methods of credit control developed empirically by the Federal Reserve system. If member banks are increasing credit without due regard to the requirements of their customers, an increase in the reserve proportions automatically effected by the volume and turnover in the use of credit puts upon the bank the directest possible pressure to curb expansion, and conversely, if credit demands relax, it will have a direct effect on reserve proportions which will prompt the bank to be more liberal with its advances.

The influence of this requirement (flat 5 per cent plus 50 per cent of the average daily turnover, maximum 15 per cent) upon the control of credit is greater than it first appears. For instance (according to the Committee's calculations), when business activity increases a bank's deposit turnover from once a month to once a week, the increase in reserve requirements jumps from 7 per cent to 12 per cent. This is certainly a substantial change. In periods of speculative booms (local or general) such as that in the stock market in 1928-29, or the farm real estate boom in the west, central west, and southern states in 1918-20, and in Florida in 1925-26, city banks and country banks in those localities affected would have had to increase their reserves materially under such conditions, and the very strong restraining influence upon credit expansion would have worked a much more wholesome effect in enforcing sounder banking practice. On the other hand, a reduction in business activities during the ensuing periods of deflation would have automatically

⁹This provision reverts to pre-1917 conditions. A similar proposal was made in the McFadden bill H.R. No. 12453 introduced in May, 1925.

released reserves, with resulting ease in credit conditions. Furthermore, during a business boom with its accompanying activity and expansion of credit, less of the banks' resources would be made available for investment in non-commercial assets, thereby lessening the danger of holding inflated values in the portfolio if a crisis should occur.

Again these proposals have the merit of correcting certain inequitable requirements as between individual and groups or classes of banks. Specifically, by allowing vault cash, within limits, to count as reserves, banks which do not have prompt access to Federal Reserve banks or branches will be put upon an equality with those located in financial centers; reserve requirements will be more equalized by changing the method of calculating net deposits subject to reserve, since country banks which do not hold large deposits of other banks must keep reserves against the greater part of their gross deposits, whereas the great city banks, which hold large deposits from their country correspondents, have a total usually much larger than the deductible items (due to banks and exchanges for clearings); measuring reserves by deposit activity does away with the inequalities of requiring banks with relatively inactive accounts (country and some city) to keep as large or larger reserves than banks with very active accounts, thus throwing the burden where it belongs and, incidentally, placing it upon banks which by reason of their business activity are best able to bear it.

The principle upon which this proposal is based is sound. With regard to the minutiae of its details and the probable success of their application I am in no position to pass judgment. It would probably be subject to some modification as experience proves the necessity of further adaption to prevailing conditions. But the purpose and methods are clear and should be generally understood.

This proposal does not offer a substitute for bank responsibility in regard to credit control. It will not serve as an effective automatic stop to inflation,²⁰ nor as a self-starter for business recovery. The control by members referred to above will not obviate the necessity of Federal Reserve control by means of the methods they have developed or may yet devise. It will at most make primary reserves reassume but part of the burden of maintaining bank credit stable and liquid. At the same time it will give to the Federal Reserve banks resources (reserve balances) slightly better adjusted to their need of ammunition to manage inflationary booms when they arise.²¹ Expansion of credit will more sensitively affect reserve requirements, causing banks to borrow at the Federal Reserve banks sooner than under present conditions, thus giving the latter

²⁰ The provisions closely guard the variations in reserve proportions, fixing a maximum not far from that actually required for many banks at the present time.

²¹ The report does not propose an aggregate increase in reserves.

nore effective control over credit. Thus by operating both upon the credit of member banks and resources of the Reserve banks, and in direct relation to business demands for credit, it would have the probable effect of strengthening the banking machinery in its ability to cope with the problem of credit control.

Summary and Conclusion. In conclusion, the problem of reserve regulation resolves itself into the question of bank liquidity and credit control. Present reserve requirements do not take adequate account of the velocity nor of the multiple and shifting character of deposit liabilities, and bankers have not yet become educated with respect to the importance of adequate eligible paper and other secondary reserves. They still insist upon using the primary reserve ratio as a guide to credit and investment policy. Therefore, a change in reserve requirements which more adequately reflects the volume and turnover of their deposits will serve not only to call their attention to the character of their liabilities but will cause the individual banker to reassume his share of the responsibility in controlling credit expansion.

BANK FAILURES IN THE UNITED STATES

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The available statistical data relative to bank failures in this country present difficult and, in some respects, insoluble problems for any one who wishes to develop complete, rational, and systematic tables that will give an accurate picture of the characteristics of our bank failures. The data at our disposal are of two fundamental kinds: those relating to failures and those relating to suspensions. The most complete series is that of failures published by the office of the comptroller of the currency. Suspensions have been compiled by the Federal Reserve Board for the years since, and including, 1921. Various other organizations, such as Dun and Bradstreet and those which publish the *American Banker* and the *Bankers' Monthly* are making some attempts to compile similar data, but they are in a form which is extremely difficult to manipulate and interpret. As a result, the present analysis rests largely upon the data relating to failures and suspensions as published by the comptroller of the currency and the Federal Reserve Board.

It must be understood that the term "failures" as published by the comptroller of the currency includes banks which are actually found to be insolvent, and embraces only those for which receivers are appointed. This includes those national banks for which receivers are appointed after having been voted into voluntary liquidation under the provisions of Section 5220 of the *United States Revised Statutes*. In other words, it frequently happens that a bank is absorbed by, or consolidated with, another bank without any suspension of business in so far as the depositor is concerned. Notwithstanding this, it may actually have been insolvent and, if so, is classed as a failure by the supervisory banking authorities. The number of failures of banks, other than national, which are published by the comptroller, are received from the various state bank superintendents or commissioners.

The bank suspension figures published by the Federal Reserve Board represent banks closed to the public, either temporarily or permanently, on account of financial difficulties. Some of these banks are reopened later or are taken over by other banks, and in many cases are not ultimately classed as failures. The "reopenings," as published by the Board include the suspended banks which have resumed operations. A resumption of operations may be attended by a change in name and an issuance of a new charter and still be classed as a reopening rather than a primary organization. A reopening resulting from a consolidation of two or more suspended banks is classed as a single reopening. When, however, a suspended national bank reopens as a state bank, or vice versa, the trans-

action is regarded by the Board as a primary organization and not as a reopening.

To add to the analyst's difficulties, the comptroller's data on failures relate to fiscal years whereas the Board's data on suspensions relate to calendar years. If one wishes to bring his figures up to date for the current year he is compelled to use suspensions which are available in the monthly *Federal Reserve Bulletins* since failures are only published annually and after it is definitely known whether the closed banks will finally be classed as failures or voluntary liquidations. It should be clear, therefore, that the best one can do in an effort to construct a fairly continuous table is to use failures prior to the current year, then resort to suspensions; or use failures to 1921 and suspensions for the years and months thereafter. Suspension figures, however, cannot be broken down into the different classes of banks as can those of failures, with the result that any analysis based upon suspensions has decided limitations statistically. In the present study, which is based primarily upon tables constructed for the years 1914 to date, both failures and suspensions have been placed side by side for whatever information could be derived from them for the respective periods covered. While the most casual inspection of such a table will reveal that much of it is composed of non-comparable data, an attempt to derive anything like accurate statistical results from it will reveal that it is impossible to do more than arrive at the most general and approximate statistical conclusions. There are many gaps in the various columns, subtotals cannot be made to add up to the proper totals as published, classifications of banks overlap and mean one thing at one period and something else at another, and so on. Nevertheless, such a table probably provides us with the best information at our disposal and all we can do is attempt to derive those inferences which seem permissible and trust that the errors are of a compensating nature. In this study tables constitute an appendix for the benefit of those who wish to explore the available data further. Without attempting to present a great number of figures, we shall pass directly to the conclusions that may be derived from a table which, after all, is little more than a statistical monstrosity.¹

Average percentages of bank failures and suspensions, 1914-30. Considering the period covered by the years 1914-30—the data for 1931 are too fragmentary to be included in our present calculations, although they are included in the appendix—and thinking in terms of average yearly

¹ Other valuable sources of information relative to bank failures are the *Hearings on Branch, Chain, and Group Banking*, Committee on Banking and Currency, House of Representatives, Seventy-First Congress, Second Session, under H.Res. 141 (Feb.-June, 1930), Vol. I, Pts. 1-8, Vol. II, Pts. 9-15 and the hearings, *Operation of the National and Federal Reserve Banking Systems*, Subcommittee of the Committee on Banking and Currency, United States Senate, Seventy-First Congress, Third Session, pursuant to S.Res. 71. (Jan.-March, 1931), Pts. 1-4.

percentages, we find that the different classes of banks may be ranked as follows on the three bases of failures, suspensions, and the liabilities involved:

TABLE I
AVERAGE YEARLY PERCENTAGES OF BANK FAILURES AND SUSPENSIONS
(1914-30)

Class of banks	Average yearly percentages of failures	Average yearly percentages suspended*	Average yearly percentages of liabilities of failed banks to total liabilities
State private commercial banks	2.88		3.01
State commercial banks.....	.91	3.60	.46
Loan and trust companies...	.67		.15
National banks.....	.63	1.15	.13
Savings banks.....	.62		.05
Aver. for all state banks.....	1.49	2.99	.30
Aver. for all banks.....	1.24	2.43	.23

* For years 1921-31 only.

It will be noticed that in number of suspensions as reported by the Federal Reserve Board for the years 1921-30, the average yearly percentage for state commercial banks is more than three times that for national banks. Whether we look at suspensions as reported by the Federal Reserve Board or at failures as reported by the office of the comptroller of the currency, state banks hold first place as against the national in the average yearly percentage of failures and of liabilities involved.

Percentages of bank failures for the decade, 1921-30. Stated in a different manner, we find that of the total number of banks in operation at the end of June, 1920, the number and deposits of all banks in the United States suspended for the decade January 1, 1921, to December 31, 1930, are as indicated in Table II.

Taking the total number of banks in existence on June 30, 1920, as a basis, we find the most extreme variations in the percentages of failures shown by the different states and the District of Columbia as revealed in data given by the comptroller of the currency for the years 1921-29. The ratios of the number of failures for the years 1921-29 to the number of banks in existence on June 30, 1920, ranged from zero in Vermont and the District of Columbia to 71.7 per cent in Florida. Other striking percentages were South Dakota with 56.8, New Mexico with 50, South Carolina with 49.2, North Dakota with 47.8, and Georgia with 43.1.

The relation of amount of bank capitalization to number of suspensions. Relying upon the Federal Reserve Board's reports of suspensions for the decade, 1921-30, we find that for all banks combined there

¹ *Hearings on Branch, Chain, and Group Banking*, Vol. I, Pt. I, pp. 84-85.

TABLE II
DEPOSITS OF ALL BANKS IN THE UNITED STATES* AT THE END OF JUNE, 1920,
NUMBER AND DEPOSITS OF BANKS THAT SUSPENDED FROM JANUARY 1,
1921, TO DECEMBER 31, 1930

	Total of all banks	Member banks		Nonmember Banks
		National	State	
Number of banks				
Number of banks in operation at end of June, 1920.....	30,079	8,025	1,374	20,680
Number of banks that suspended from Jan. 1, 1921, to Decem- ber 31, 1930.....	6,987	924	257	5,806
Percentage of banks that suspended during 1921-1930 to total banks in opera- tion at end of June, 1920 (per cent).....	23.2	11.5	18.6	28.1
Deposits				
Deposits of all banks in opera- tion at end of June, 1920 ^b	\$41,445,376	\$17,148,231	\$8,224,105	\$16,073,040
Deposits of banks that suspended from Jan. 1, 1921, to Dec. 31, 1930 ^b	2,586,388	529,070	345,600	1,711,000
Percentage of deposits of banks that sus- pended during 1921-1930 to total deposits of banks in operation in June, 1920 (per cent).....	6.2	3.1	4.2	10.6

* of Alaska and island possessions (60 banks). Cf. *Hearings on Branch, Chain, and Trust Banking*, Vol. I, Pt. I, p. 80.
^b rounded.

steady increase in the percentage of suspensions as we go from the low classes of capitalization. Indeed, 61 per cent of the suspensions fall among banks of \$25,000 or less of capitalization, 71 per cent among those of capitalization under \$100,000. The following table presents the essential facts in the situation:

TABLE III
SUSPENSIONS CLASSIFIED ACCORDING TO CAPITAL STOCK (1921-1930)*

Amount of capital stock	National		State member		Nonmember		All Banks	
	Num- ber	Per- centage	Num- ber	Per- centage	Num- ber	Per- centage	Num- ber	Per- centage
Under \$25,000	326	35	3	1	2,667	46	2,670	38
25,000 to 49,000	81	9	70	27	1,210	21	1,606	23
49,000 to 99,000	315	34	32	13	512	9	625	10
99,000 to 199,000	136	15	72	29	819	14	1,206	17
199,000 to 999,000	63	7	56	22	343	6	535	8
999,000 to 2,499,000	63	7	18	6	124	2	205	2
2,499,000 and over	3	.3	6	2	11	.2	20	.3
Total	924	100	257	100	5,806	100	6,987	100

* 13th Annual Report of the Federal Reserve Board (1930), p. 133.

relation of number of suspensions to size of towns. Relying again on the Federal Reserve Board's reports of suspensions for the decade 1921-30, we find that 61 per cent were in villages of less than 500 inhabitants, 60 per cent

in villages under 1,000 population, and 92 per cent in towns and vill with a population of 10,000 or less. The following table will prese more complete picture of the distribution:

TABLE IV
BANK SUSPENSIONS CLASSIFIED ACCORDING TO SIZE OF TOWNS (1921-1930)*

Places with population of	Total	Percentage
Less than 500	2,720	40
500 to 1,000	1,411	20
1,000 to 1,500	695	10
1,500 to 2,500	674	10
2,500 to 5,000	532	8
5,000 to 10,000	299	4
10,000 to 25,000	237	3
25,000 and over	419	5
Total	6,987	100

* *Seventeenth Annual Report of the Federal Reserve Board (1930)*, p. 133.

Relative number of suspensions among member and non-member banks of the Federal Reserve System. Of the total suspensions during years 1921-30, 83 per cent were nonmember banks, 18 per cent national banks, and 4 per cent state member banks as the following table reveals:

TABLE V
MEMBER AND NONMEMBER BANK SUSPENSIONS (1921-1930)*

Class of bank	Number	Percentage
National.....	924	13
State member.....	257	4
Nonmember.....	5,806	83

* Compiled from *Seventeenth Annual Report of the Federal Reserve Board (1930)*, p. 13.

Relation of bank failures and suspensions to business failures. A study of Table H in the Appendix shows that there is an extremely close relationship between the number of commercial and bank failures during the years 1892-1930, and that the average percentage of bank failures

TABLE VI

Years	Average annual percentages of failures of	
	Commercial enterprises	Commercial banks
1892-1913	1.00	.59
1892-1920	.94	.64
1914-1920	.81	.23
1914-1930	.90	1.24
1921-1930	1.06	1.97
1892-1930	.97	1.01

the period exceeds that of commercial failures. The breaking up of the data into significant periods, however, reveals some striking facts. It will be observed that the average annual percentages of commercial bank failures prior to 1921 were less than those since that year; that the average annual percentage of bank failures prior to 1921 also was less than that of commercial failures but that it has been far in excess of that of commercial failures since 1921; and that the period 1914-30 shows the average annual percentage of bank failures exceeding that of commercial failures for the same period and for that of the preceding twenty-two years. While a casual comparison of the average percentage of bank failures for the years 1914-30 with that of the preceding period may appear to offer a picture quite damaging to the prestige of the Federal Reserve system, it is clear that the really significant period is not from 1921 to 1930, since the average annual percentages of commercial and bank failures for the years 1914-20 are the lowest for the thirty-nine year period being considered.

Nevertheless, it has been quite the common thing, at least until recently, to point out the accomplishments of the Federal Reserve system with respect to combatting business recessions and the lessening of the disasters and hardships which flow from them as compared with the conditions which obtained prior to 1914. If we take as an example the crisis of 1907-08 it is worth while to show just how erroneous these ideas are:

TABLE VII

Years	Average percentage of		Liabilities of failed (in millions)		Number of commercial banks failing
	Commercial failures	Bank failures	Commercial enterprises	Commercial banks	
1908	1.08	.72	222	232	156
1921	1.02	1.15	627	113	358
1922	1.19/1.10	1.29	623	116	397
1930	1.21	2.59	668	308	640

A comparison of the commercial and bank failures since 1920 with those of 1893 also will show the same general situation.

A lesson that stands out clearly with respect to the period covered by the Federal Reserve system, particularly that period since 1920, is that this is marked by two of the most serious crises that we have experienced in forty years, if not altogether, and that this period has been characterized by an unprecedented number of commercial and bank failures.

Returning to the question of the relationship existing between commercial and bank failures, a study of Table H in Appendix will show that how closely commercial bank failures accompany failures of commercial enterprises. In the thirty-nine years covered by this table, the

aggregate liabilities involved in commercial and bank failures fluctuate together twenty-five times and in opposite directions thirteen times. Peaks in both series were reached simultaneously in all but two cases, 1896 and 1908—as the following table will show.

TABLE VIII
PEAK YEARS FOR FAILURES AS REVEALED IN COMMERCIAL AND
BANK LIABILITIES FOR YEARS 1892-1930

Commercial	Bank
1893	1893
1896	1897
1903	1904
1908	1908
1914	1914
1915	1915
1921	1921
1922	1922
1924	1924
1927	1927
1930	1930

From the evidence available it is clear that the relationship between commercial and bank failures is unquestionably close and there is not much more of a lag than lead in the bank failures in the years in which they do not move together, it appears quite probable that conditions in the commercial world are responsible to a large degree for bank failures, just as bank failures have an important effect upon commercial failures. Aside from other causes which may be responsible for bank failures, it was estimated by the comptroller of the currency in 1930 that 50 per cent of the responsibility for bank failures in that year could be charged to "local financial depression in agriculture and industry," combined with "incompetent management" which he estimates is responsible for 38 per cent of the bank failures in that year, and which, certainly, must be very closely connected with local agricultural and industrial disasters, undoubtedly provides one of the important causes of bank failures.

However, another lesson that may be learned after a study of the data on bank failures is that we have not only a heavy percentage of bank failures during times of business recession, but also a heavy and continuous series of such failures in fairly normal times and even in periods of prosperity. One cannot insist, therefore, that business recessions constitute the fundamental cause of our failures. It is true that the number of failures increases as commercial failures increase but this fact does not indicate that the banks not only are not able to meet business fluctuations in the proper manner but really contribute to the severity of these fluctuations. It is instructive as well as interesting to note that in contrast to commercial failures, bank failures appear to have very little relation to commercial failures. The remarkably few failures which have taken

that country indicate that the branch banking system there is much better qualified to resist the strain of business fluctuations than our system of unit banking is able to withstand the effects of business fluctuations in this country. Her business fluctuations are not as severe as ours and one contributing factor must be found in the fact that her banks are able to stand by and assist business in times of need. It may be noted, also, that bank failures are almost unknown in England, although, she has her business fluctuations. It would appear, therefore, that a fundamental explanation of the causes of bank failures in this country is to be found, partly at least, in the nature of our banking structure.

Conclusions derived from the statistics of bank failures. Before proceeding to a further analysis of the causes, problems, and possible correctives of bank failures, it may be helpful to summarize the essential conclusions at which we have arrived after an analysis of our statistical data:

(1) The heaviest failures, absolutely and relatively, are among the state banks; (2) the failures are greatest among banks with small capitalization; (3) they are heaviest in small towns and villages; (4) they are heaviest among banks outside the Federal Reserve system; (5) they have been uniformly heavier than failures of commercial enterprises since 1920 but not during the period 1892-1920; (6) they accompany very closely the rise and fall in commercial failures usually reaching the peak at the same time; (7) they are not only caused by business recessions but contribute to unsound business conditions; and (8) they are more pronounced than in any other country in the world even in fairly normal and prosperous times, which would seem to indicate that there are some fundamental and organic defects in our banking structure that require correction.

An analysis of the causes of bank failures. If the preceding conclusions are correctly deduced from the available statistical evidence, it would seem that logic compels us to attack the problem of increasing bank failures by examining what appear to be the most outstanding and fundamental defects of our banking structure which have contributed to the present unhappy situation, as well as those factors that lie outside the field of banking.

We shall consider the problems and possible correctives under the following main heads:

1. The defects inherent in the organic structure of our commercial banks and banking system.

2. Those due to the inadequate control of our credit structure by the Federal Reserve system which, in turn, result from two limitations, (a) those inherent in the structure of the Federal Reserve system, and (b) the inability or reluctance of the Reserve authorities to devise and apply adequate principles of credit control.

8. Those causes lying outside the banking field.

1. *Defects inherent in the organic structure of our commercial banking and banking system.* (a) We have an unnecessary and an unwise division of our commercial banks into national and state banks with forty-legislative bodies regulating and granting special privileges to their respective banks. For a long time state banks received privileges not accorded national banks; then the national banking law was liberalized to place national banks on an equality with state banks, with the result that this competitive liberalization of bank laws has led us to permit the creation of unsound banks and the indulgence of unsound banking practices. Such a system, with its forty-nine different jurisdictional authorities and forty-nine sets of laws, by its very nature, involves lack of uniformity in legislation, in standards of banking, in rates of progress, in supervision. These conditions have been permitted to prevail for a better reason than as a concession to historical precedent and the doctrine of states' rights. Commercial banking is, and cannot be anything else than, interstate in nature and, as a result, there is no logical basis which to defend the present classification of our banks into both national and state with the prevailing lack of uniformity in banks and banking practices.

(b) We have too many banks—especially too many small banks. The statistics of the failures place this contention beyond dispute. Competitive liberalization of our various state and national laws has been primarily responsible for this situation. The lenience on the part of our lawmakers doubtless has been due to the prevalence of the doctrine of *laissez-faire* in matters relating to business enterprise. As a part of this doctrine, each community has desired its bank and, preferably, more than one bank in order to secure the full fruits of the competitive system. The securing of one or more local banks was facilitated by the low capital requirements and the ease with which the laws permitted the chartering of banks. Nearly half of the banking resources of the country are in the hands of 1 per cent of our banks (250 in our metropolitan centers, the other half being spread thinly among the other 99 per cent. Two hundred and four banks, national and state, in New York City alone have a capitalization almost equal to that of 20,008 country banks situated in towns of 10,000 population or less.³

(c) Too many banks are outside the Federal Reserve system with the result that the Reserve authorities are not in a position to regulate and aid them. The unfortunate aspects resulting from this situation reveal themselves in a striking manner during crises like those of 1920 and 1933. Of the 6987 national and state banks which failed during the decade 1920-1930, 68 per cent were nonmember and 17 per cent member banks. The lessons to be drawn from this evidence should be obvious.

(d) Small unit banks often do not or cannot secure the proper div

³ *Hearings on Branch, Chain, and Group Banking*, Vol. I, Pt. I, pp. 22-23.

lication of their portfolios due to the fact, perhaps, that they are in communities in which a few crops or industrial activities predominate and provide them with an undue proportion of paper of a certain type, with the result that the welfare of the bank depends almost entirely upon the prosperity of the local community. Furthermore, with the increased use of the automobile and other means of communication, much of the important business of local communities has gone to the larger centers with the result that small town banks tend to hold only the unimportant local business.

(e) It appears that the proportion of paper eligible for rediscount with the Federal Reserve banks is too small for the safety of the commercial banks in times of stress. For example, the *Reports of the Comptroller of the Currency* for 1929 (p. 85) and for 1930 (p. 47) reveal that only about one-fifth of the paper, representing loans and discounts, held in the portfolios of the member banks during those years was eligible for rediscount. This means, of course, that the ability of these banks to secure help from the Reserve banks in times of need is limited to the amount of eligible paper held and to their ability to secure advances on their own promissory notes secured by United States government securities.

(f) Closely related to this situation is the fact that during recent years commercial banks have been steadily increasing the proportion of their resources given over to investments as compared with the proportion going into loans and discounts. Computing the percentages based on the averages for the years 1919 to 1925 from data given in the *Annual Reports of the Comptroller of the Currency*, we find that 22 per cent of the member banks' earning assets were investments, and 78 per cent were loans and discounts. On June 30, 1930, 29 per cent were investments and 71 per cent were loans and discounts. In a similar manner, the ratio of loans made on securities to total loans and investments has been increasing at approximately the same rate, although it is generally known that a fair proportion of the proceeds of these loans—perhaps 20 per cent—are used in commercial transactions. These figures show that commercial banks are shifting more and more from the financing of commercial transactions and are devoting an increasing proportion of their resources to the financing of fixed capital. These changing proportions contributed to the lack of liquidity in the resources of commercial banks and probably reveal a contributing factor to the increased number of bank failures. This changing proportion has an even greater significance when considered in connection with the small unit banks which invest such a large proportion of their resources in local mortgages. Table IX will show something of the trend.

(g) Directly associated with the question of the increased proportion of investments and loans on investment paper and mortgages by commercial banks are those questions relating to the increased number of in

TABLE IX
(In millions of dollars)

	Total loans and investments including loans to banks and open market purchases	Investments on securities	Loans on securities	All other loans	Ratio of investments to total loans and investments (in per cent)	Ratio of loans on securities to total L. and S. (in per cent)	Ratio of investments plus loans on securities to total loans and investments (in per cent)
All member banks (June 30, 1930) ^a	35,656	10,442	10,656	14,558	29	30	59
All member banks (June 29, 1929) ^b	35,711	10,052	10,094	15,565	28	28	56
719 reporting member banks in 101 centers (June 24, 1925) ^c	18,710	5,505	5,206	7,999	29	28	57
719 reporting member banks in 101 centers (yearly average for 1921) ^d	15,346	3,366	3,697	7,063	22	24	46

^a *Seventeenth Annual Report of the Federal Reserve Board* (1930), p. 93.

^b *Ibid.*

^c *Twelfth Annual Report of the Federal Reserve Board* (1925), p. 145.

^d *Ibid.*, p. 144.

ment and other non-commercial banking affiliates which have been attached to commercial banks, particularly in metropolitan centers, in recent years. It seems beyond question that these have been dangerous factors in commercial banking, due to the fact that they have involved the commercial banks in many non-commercial banking activities which, in the opinion of many people, belong entirely outside the legitimate range of commercial banking. These devices for disguising the non-commercial activities of commercial banks have been all the more dangerous because of the fact that they disguise the true situation. In general, no provision is made either in national or state banking laws for the examination of these affiliates by commercial banking authorities. Only a few have been examined and this has been made possible through the courtesy extended to the bank examiners by the bank concerned. That these affiliates have been contributing factors to the number of bank failures seems beyond question. It was reported that when the Bank of the United States, in New York City, failed, it had about fifty affiliates with relationships so involved that it is doubtful if they could be disentangled.

(h) Another factor which has contributed to the weakening of our commercial banking structure has been the steady increase in the proportion of time as against demand deposits. On the basis of the average percentages for the years 1919-25, we find that demand deposits

mounted to 50 per cent, and time deposits to 82.5 per cent, of the earning assets of the member banks of this country, while, on June 30, 1930, demand deposits amounted to 52 per cent and time deposits to 38 per cent of the earning assets. Against these time deposits, which have increased absolutely and relatively during recent years, a reserve of only 10 per cent is held despite the fact that the cash derived from these time deposits is treated like the cash received from demand deposits against which a much higher reserve must be kept. This situation has presented an inviting, although a dangerous, opportunity to commercial banks. It has been inviting to commercial banks because it has been more profitable for them to expand their loans and investments and reap greater profits. It has been a dangerous factor for the banks since they have been led into making loans and investments of a type not appropriate for banks engaged in a savings banking business, and also in the fact that their reserve ratio against genuine demand liabilities has tended to fall below that required against such liabilities. From the point of view of the savings depositor, the situation has been fundamentally bad, although he has received some conveniences not afforded by the genuine savings banks. In most instances he has been able to withdraw his time deposits without prior notice, and quite often, if not usually, his commercial bank has been more conveniently located than the nearest savings bank. Against these services, however, is the fact that his deposits have not been and are not properly secured by reserves and investments as well as the fact that in the event of a run on a bank the time depositor can be made to wait at least thirty days to present his claims while his funds are being paid over the counter to meet the claims of the demand depositors. If the interests of depositors are to be considered seriously in connection with bank failures, and if the small saver is to be given the proper protection due him, then here is another problem which needs study and correction.

(i) The unit costs in our great multitude of small banks are relatively high and the net returns are very low. The prevalence of ostentatious buildings and equipment is no small factor in this situation. An analysis by the comptroller of the currency of bank earnings showed that a large proportion of the banks outside of metropolitan centers were not earning enough to justify their existence. This was true even in such relatively prosperous years as 1925, 1926, and 1927. In 1927 nearly 966 national banks were operating at a loss, and an additional 2000 were earning less than 5 per cent. This constituted about 38 per cent of all national banks in the United States.⁴ The situation among the state banks was even worse.

(j) Another defect of our unit banking system, especially of our small banks, is found in the poor management which generally character-

⁴ *Hearings on Branch, Chain, and Group Banking*, Vol. I, Pt. I, p. 5.

izes them. In general, the officers are of an inferior sort. Perhaps the cashier, and a few others in the bank, has had some formal training in banking procedure and principles, but the training of the president and others responsible for running the bank has probably been along different lines. The leading citizen in most communities usually hopes to complete and polish off his business career, whether he be the successful grocer or butcher, by becoming the president of the local bank. This phenomenon is a traditional and a peculiar characteristic of American life. Such men ordinarily are individualists and resist co-operation. They are typical small-town men, often called hard-headed business men and the backbone of our nation. In the proper sense of the term, however, they usually are not bankers. They may know something of the technique of banking but little of its fundamental and far-reaching principles. They are not well acquainted with the literature on banking, with the tendencies, current problems, and possible solutions which should be of interest to them. They resist the collecting and filing of data on local and more general business conditions which affect their bank; they resist modernizing methods; they often permit sentiment to play too large a part in the making of local loans; the directorates usually are filled with local business men who know little about banking and often are indifferent regarding the bank's affairs. Everyone, of course, recognizes that there are many fine exceptions to these generalizations; nevertheless sober reflection must impress one with the general accuracy of the picture and with the fact that the type of management characterizing a large part of our unit banking system is an important factor in bank failures. For example, the comptroller of the currency, in analyzing the causes of the failures of the national banks in charge of receivers on October 31, 1930, listed them as follows:⁵

	<i>Per Cent</i>
A. Incompetent management	88
B. Dishonesty	9
C. Local financial depression from agricultural or industrial disaster	50
D. Receiver appointed to levy and collect stock assessment covering deficiency in value of assets sold	3
E. Temporary suspension	1

A study of these classifications and percentages will reveal that it probably is not possible to separate the 88 per cent of failures due to incompetent management from those due to local business depressions since it is the purpose and test of good bank management to avoid the effects of local financial depressions. Traditional practices of these small unit banks combined with the circumstances in which they find themselves bind them closely to the activities of the local community.

⁵ *Annual Report of the Comptroller of the Currency (December 1, 1930)*, pp. 237-8.

(k) Finally, we may mention the fact that the problem of inadequate bank supervision is still with us. Due frequently to the youth and relative inexperience of many of our bank examiners, it becomes a fairly simple matter for sharp bank officers to outwit them. Usually the staffs of examiners and of examination departments are inadequate and poorly aided. The great number of failures is evidence of the fact that they are unable to cope with the situation. In addition, we have the problems arising from the conflict of authority, if not a total lack of authority, with respect to the examination of chain and group banks and the non-banking holding companies that are sometimes a part of these systems. We also still find difficulties in the way of quick and effective action on the part of the comptroller of the currency in correcting unsound banking practices due to bad management on the part of officers and directors of banks.

2. Inadequate control of credit by our Federal Reserve authorities. Another fundamental explanation of our phenomenal number of bank failures is to be found in the inadequate control of credit, with particular reference to the business cycle, which characterizes our Federal Reserve system. This is due to the limitations placed upon the possibilities of credit control because of the structural characteristics of the Reserve system and to the inability or lack of ability of those in charge to devise the principles and mechanism that are effective within the limits which the structure of the system permits. Regarding the first set of limitations, it may be pointed out that fundamental restrictions upon the possibilities of controlling credit in the interests of price level stability exist due to the necessity of maintaining legal reserve requirements, the fact that there is a tremendous amount of credit in use which is beyond the scope of authority of the Reserve system, and the fact that our Reserve system is not linked properly with an international clearing mechanism like that provided by the Bank for International Settlements. With these organic defects in our Federal Reserve system, it is impossible for the Reserve authorities to use their mechanism of credit control in the interests of price level stability, assuming that they desire to exercise such control, with the expectation that they can secure the desired results more than very approximately. Indeed, some of these limitations, such as the necessity of maintaining the reserve structure, become of such paramount importance at times that there is not the remotest possibility of maintaining a stable price level.

The amount of credit in use which is beyond the control of the Federal Reserve authorities, and yet affects business conditions and the price level, is sufficient to upset their best laid plans. We only need mention the tremendous amount of credit used in the stock market, the capacity of the Federal Farm Loan system to extend too much credit to farmers, and the various other non-commercial banking systems and enter-

prises lying outside the Reserve system to appreciate the significance of this problem in the question of credit control.

Space will not permit a consideration of the handicaps experienced by a country like this which might attempt to control credit in the interests of business stability while not co-operating with or participating in an international clearing bank further than to say that the present gold problem of this and other countries would doubtless be minimized if such an international clearing device existed and we participated in it.

Recognizing, however, these organic limitations inherent in the nature of the Reserve system, it is believed that much more could be done than has been done to control credit in the interest of price level stability. We have had several years of experience with surplus reserves during which it seemed clear that our principles, policies, and mechanism of credit control had not been developed to the best possible limits. It is generally understood that there has been lack of agreement among Reserve authorities as to the proper criteria to be used in the attempts to control credit; lack of agreement as to the principles according to which the mechanism of credit control should be used in the event there is agreement as to the ends to be attained; and lack of agreement as to the proper instruments to be employed in an effort to apply suitable principles.

The questions of the inherent limitations of the Federal Reserve system combined with the lack of agreement regarding theories of credit control present some of the most formidable problems with which a people desirous of correcting the defects of its money and banking structure, can be faced. Regardless of the present state of individual opinion on these points, the fact must be apparent to all that since the inauguration of the Federal Reserve system we have witnessed the greatest fluctuations in the price level and the greatest number of bank failures for the years involved that this country has ever seen. From these facts the lesson must be clear that the system is not meeting present-day demands properly and that some well-considered corrections should be made.

3. *Causes lying largely outside the banking field.* Finally, we may mention those causes which lie largely outside the field of banking in the sense that they exist regardless of the structure and policies of any banking system and in the sense that it is extremely difficult if not impossible for a banking system to adapt itself to them in any very successful manner. There are those instances of abnormal production in certain very important basic industries, as in the case of wheat, for example, induced by the demands during the World War, in which the attempted readjustments have brought widespread suffering; there are those cases of distorted production and consequent unpleasant readjustments which have been the result of various unsound price-fixing schemes; there has been a distortion of foreign trade and of the distribution of the world's gold supply as a result of debt and reparation payments and the erection of

ariff barriers; there has been an unusual fostering of production as a result of the abnormal development of installment purchasing which was prevalent during the few years prior to the present recession; there are those factors, other than money and credit, which contribute to business cycles; and, finally, we may mention again the shifting of business from small to larger business centers as a result of the improvement of roads, the increased use of the automobile, the development of larger business units, chain stores, and so on.

Possible correctives. If the preceding analysis of the causes of bank failures is sound, then it would seem that we have been provided with definite clues as to the changes that should be considered carefully and probably made in our banking structure and practices after weighing the evidence regarding each revealed weakness and possible corrective.

If we are to attempt to correct the structural defects of our commercial banking system, the evidence would seem to indicate that all commercial banks should be brought within the Federal Reserve system if it is to exercise genuine control over commercial credit, perform its other functions properly, and provide the proper aid and protection to commercial banks. Furthermore, since commercial banking is interstate in nature, it appears preferable to convert all commercial banks into national banks, leaving for the state banks the savings bank and trust company business in so far as possible, although it would not seem advisable to deny these functions to national commercial banks also, since there would be a great number of places in which there would be no savings banks and trust companies to provide the necessary services to the people. The questions of states' rights and constitutional limitations do not present insurmountable difficulties. When a business becomes interstate in nature or becomes an instrumentality vital to the free movement of interstate commerce, the business is national in character and should be brought under national jurisdiction. In such cases the states have no rights that demand protection since the public well-being is at stake.

As to the constitutional aspect of the question, it is quite doubtful whether there are any constitutional difficulties involved. Considering the various court decisions, including the famous cases of *McCulloch v. Maryland*, and *Osborn v. Bank of the United States*, as well as some similar ones since, it appears that the currency and fiscal clauses of the Constitution, as interpreted by the United States Supreme Court, provide ample authority for such a change. All that is necessary, apparently, is for Congress to decide that an exclusively national commercial banking system is a necessary instrumentality in the development and enforcement of national currency and fiscal policies since it appears clear that the principles of constitutional law set forth in the case of *McCulloch v. Maryland* are applicable to the present situation. If this is not true, then it naturally follows that a national commercial banking policy can be

defeated by the state commercial banks, a situation that is both irrational and intolerable in this country. Furthermore, while some writers have held that banking, like insurance, is not interstate commerce, it seems quite doubtful whether there is any basis for such a contention. Frederick N. Judson in his *Interstate Commerce*^{*} has said that "the business of private banking is not commerce, although it may include the receipt of bailments from other states," and cites the case of *Engel v. O'Malley*[†] in support of his contention. Various writers since have rested their arguments on both Judson and the case of *Engel v. O'Malley* without learning, apparently, that the case cited does not hold that banking is not interstate commerce. A search through legal records has not revealed any case in which the United States Supreme Court has held that commercial banking is not interstate commerce. It would seem, therefore, that if such a question could come before the United States Supreme Court, straight reasoning would compel the court to rule that commercial banking is interstate commerce. In any event, it appears highly probable that the court could rule quite reasonably that commercial banking is a necessary instrumentality of interstate commerce and, therefore, comes within the jurisdiction of the federal government whenever it chooses to exercise its authority. Regardless of the merits of the question of constitutionality, the way of progress does not lie in abstaining from undertaking what appears necessary and proper because of some supposed constitutional obstacle. Let the changes be made and the issue be tested in the courts. If the Constitution is violated, amend the Constitution. A sound banking structure is of far greater importance to a people than the adherence to a constitutional provision that prevents the making of changes necessary to meet present-day problems.

A further argument in favor of nationalizing all commercial banking rests upon the fact that it is hardly rational to expect much progress, and certainly not uniform progress, by waiting for forty-nine different legislative bodies to agree upon and pass sound and progressive legislation. A fundamental purpose of the Federal Reserve system was to provide us with a national policy and system but it cannot be made effective with the present organization of our commercial banking structure. We can accomplish these things only through a national law. Business cycles are national in scope as are the problems of credit control; commerce is interstate and international in nature; the problems of a proper reserve structure are national and even international in their ramifications, and such questions can be dealt with adequately only by a governmental body with the proper jurisdictional authority. It is an interesting fact that with careful reflection should have convinced us long ago that a nation must have a national commercial banking system and policy, since this is a

* T. H. Flood and Co., Chicago, 1916, 8d ed., Sec. 18, p. 18.

† 219 U.S. 128, 188, 189; 182 Fed. 865 (1910).

to national well-being, we have continued to permit a scattered banking with the accompanying diffusion of authority that has made an effective national policy impossible. Too much democracy in banking has been a devastating factor in our economic life.

It appears also that branch banking should be provided for in order to enable banks to secure the proper diversity in their portfolios; to eliminate the problems now associated with small unit banking; to provide adequate capitalization so that the banks can engage, not only in local banking, which today is often beyond the capacity of the local bank, but in a wider type of commercial financing; to insure a better grade of management; and to eliminate some of the dangers now associated with main and group banking. It seems logical, also, for such branch banking to be as wide as the Federal Reserve districts, if not nationwide, in order to secure proper diversification, and the other virtues that are necessary to accompany well-organized branch banking. Under such a plan, branch offices could and should be opened where a unit bank could not exist profitably and without danger to the community. It is surprising to consider the fact that while we are willing to permit our banks to establish branches in the far corners of the world, we have been unwilling to permit them to establish branches within the country despite the fact that about 90 per cent of our trade is national rather than international and despite the fact that we could regulate international branches more effectively than the foreign.

As far as unit banking continues, the minimum capitalization limits should be raised.

More study should be given to the question of the proportion of rediscount paper which member banks should hold as well as to the proportion of other types of paper, especially investment and mortgage paper, which might be included with safety in their portfolios. In a similar manner, more study might be given profitably to the possibility of devising a scheme for increasing the margin of collateral required as security for loans when the price level is rising.

There also appears to be considerable merit in the proposals made to carry through the creation of central mortgage rediscount banks, the type of institutions which hold real estate mortgage paper.

A good central banking appears to depend upon the maintenance of liquidity, extreme care should be taken in admitting any new type of asset to the portfolios of the Reserve banks which might impair this liquidity. The attempt to give a central banking system wide powers of control seems to conflict at certain points with the attempt to maintain it in its liquidity.

Non-commercial banking affiliates doubtless should be brought under the control of and be examined by the proper commercial banking authorities, if, indeed, they should not be severed from commercial bank-

ing institutions. Careful consideration should be given also to the possibilities of placing strict limits upon the total amount of loans which commercial banks may make to their affiliates in the event they are not severed from the commercial banks.

Time deposits, especially those of a thrift or savings nature, should be under the same restrictions as to investment as savings deposits in savings banks and the resources segregated, or the reserves against these deposits should be the same as against demand deposits. Perhaps an effective combination of both ideas could be devised.

Every reasonable step should be taken to improve the system of bank reports, examinations, and methods of dealing with recalcitrant bank directors and officers. Until a thorough overhauling of our commercial banking structure is effected, the Comptroller's Office should be given authority to examine and exact reports from every unit in the chain and group banking systems which are interstate in character or in which a national bank is one of the units.

Steps should be taken to remove all obstacles to control which are inherent in the structure of the Federal Reserve system, and which now hamper our Reserve authorities.

The plan recently proposed by the Committee on Member Bank Reserves according to which reserves would tend to increase and decrease in harmony with the expansion and contraction, respectively, of bank deposits and debits would seem to provide the Federal Reserve system with an additional instrument of credit control which is more or less automatic in nature. If credit control, looking to the stability of the price level, is to be made effective under all conditions, provision must also be made in some manner to overcome the contraction of credit that necessarily follows when the minimum legal reserve requirements are reached. One possible way out is to use the gold reserves largely for international clearing purposes, and retain only enough to maintain confidence in the domestic currency. If an international clearing fund were established, in which a portion of our reserves was held, the necessity for reserves at home would be minimized and gold shipments would be less necessary and less dangerous. Another possible way out might be found in varying the weight of the gold dollar along the lines already proposed by Professor Fisher, which, of course, means an increase in the buying price of gold at one time and a decrease in its buying price at another. Although we have provisions at present by which reserve limitations can be exceeded under penalty conditions, a change in weight probably would assure a slower exhaustion of the reserves than would be possible under present arrangements. Unless some such scheme is devised to meet the problem of overcoming minimum legal reserves, stabilization of the price level under such conditions appears to be an idle dream.

The third fundamental consideration to be dealt with if we are to con-

control credit effectively involves the development of the proper relations with an international clearing bank. Regardless of any particular device that might be created to overcome the rigidity of minimum reserve requirements, central banking systems today cannot work alone in their attempts to control credit. An international clearing mechanism is a logical and economical device which would do much to prevent and correct maldistributions of gold. It would permit sufficient economies in the use of gold to cause the problem of world scarcity of gold to recede far into the background if not disappear altogether. Without international clearing and international co-operation, credit control probably would continue to work only within rather narrow limits.

Assuming that we can provide the banking structure and the specialized instruments necessary to credit control, the next step would be to develop principles of action and to make strenuous efforts to educate the public as to the nature of these principles and the reasons for certain measures being taken by the reserve authorities under given conditions. It is reasonable to suppose that in time the public would become accustomed to such measures, would learn their significance, and would learn to respond intelligently to them.

Regarding the correction of those probable causes of bank failures lying largely outside the banking field, it may be said that some of the difficulties cannot be removed until the world can find a rational substitute for wars. In the meantime much can be accomplished by not engaging in unwise price-fixing schemes, by the adoption of more enlightened tariff measures, by doing more to educate the general public on the dangers of large installment buying as well as other dangerous practices that characterize the expansion period of the business cycle and lead us into crises. Such steps are of genuine importance since it appears clear that the instruments of credit control with respect to business cycles function best, if not almost entirely, during periods of business expansion.

That our banking system is out of joint and in need of overhauling seems clear. It is also well understood that out of every business crisis come demands for revision of our banking laws. It is a national habit despite the fact that we know we already have our bankers in legal strait-jackets when compared with the freedom given to bankers in such a country as England. Nevertheless, this seems to be the only feasible way to correct existing defects, since we cannot afford to perpetuate our system of little unit banks, with its amateur bankers, with its inability to cope with modern business problems satisfactorily, and with its tremendous number of bank failures which have caused unmeasured losses and untold misery for millions of depositors, borrowers, stockholders, officers, and directors, who have striven valiantly to accumulate a little surplus which will afford them security in the evening time of their lives. The Comptroller of the Currency, before the Currency Committee of the

House of Representatives investigating group, chain, and branch banking, painted the picture vividly when he said (in February, 1930): "There is no more distressing sight than a group of citizens, men and women, clamoring before the closed doors of a bank bewailing the loss of their savings. These losses fall upon the best and most substantial citizens in the community and many of them never recover their previous financial condition. Multiply this local event by nearly 6,000 and scatter it throughout the great agricultural states of the Union and the magnitude of its effects reaches astounding proportions.

"It is estimated that 7,264,957 depositors have contributed to the great total of more than \$1,700,000,000 of deposits in failed banks during the past nine years and that no less than 114,000 shareholders have suffered losses through these suspensions." As to similar adverse effect upon the borrowers of a bank, the Comptroller pointed out that "failed banks in the United States have caused within the last nine years the enforced liquidation of approximately two billion dollars of loans—chiefly small loans."

The tragedies of depositors and others today, in a country that is supposed to know something about how to devise laws to protect the needy against unsound social institutions and devices, are a sufficient answer in themselves to those who insist that the laws do not need revision. It is certainly high time that those interested in the welfare of the depositors, the common man and woman, and the public in general—and this means the legislators, the press, the social scientists, and those outstanding bankers who see the banking business in its proper setting—should join hands and do all things possible to correct present defects so that the losses and tragedies which characterize our present banking system will speedily and definitely become events of history without probability of recurrence.

* Vol. I., Pt. I, pp. 13-14.

* *Ibid.*, p. 14.

NATIONAL BANKS

Year	Number in United States (June 30) ^a	Number Suspended (Dec. 31) ^b	Percentage Suspended	Number Failed ^c	Percentage Failed	Liabilities of Failed Banks (June 30) ^d	Liabilities of All Nat. Banks ^d (June 30)	Percentage of Liabilities of Failed Banks to Total
1914	7453			21	.28	\$ 9,774	\$ 11,482,191	.09
1915	7560			14	.18	12,767	11,795,685 ^e	.11
1916	7571			13	.17	3,020	13,926,868	.02
1917	7589			7	.09	5,282	16,151,040 ^f	.03
1918	7691			2	.03	2,359	17,839,502 ^g	.01
1919	7762			1	.013	496	20,799,550	.002
1920	8019			5	.06	1,930	22,196,737	.01
1921	8147	51	.62	23	.34	17,301	19,638,446	.09
1922	8246	45	.54	33	.40	20,287	20,706,010 ^h	.10
1923	8238	90	1.08	37	.45	20,076	21,511,766	.09
1924	8085	122	1.49	138	1.68	74,745	22,565,919	.33
1925	8070	118	1.44	102	1.24	53,315	24,350,863	.22
1926	7978	125	1.54	77	.96	58,112	25,315,924	.15
1927	7796	91	1.15	142	1.79	59,915	26,581,943	.22
1928	7691	57	.74	71	.91	32,905	23,508,539	.12
1929	7536	64	.84	69	.91	47,677	27,440,229 ^g	.17
1930	7252	161	2.17	82	1.12	55,291	29,116,539	.19
Totals		924		842		\$455,250	\$359,927,151	
Averages			1.15		.63			.13
1931 ⁱ								
January.....		22						
February.....		15						
March.....		18						
April.....		17						
May.....		24						
June.....		27						
July.....		15						
August.....		26						
September.....		46						
October.....		99						
November.....		34						
December.....		34						
		843						
		and						

^a Annual Report of the Comptroller of the Currency, Dec. 1, 1930, p. 77. Figures given here conflict with some of those given on pp. 438-447 of the same report.

^b Seventeenth Annual Report of the Federal Reserve Board (1930), p. 131. Percentages are computed by adding number failed or suspended to number of banks still in existence and dividing total into number suspended or failed.

^c Annual Report of the Comptroller of the Currency, Dec. 1, 1930, p. 770.

^d Ibid., Dec. 6, 1931, pp. 330-341, for years, 1914-31.

^e As of June 23.

^f As of June 20.

^g As of June 29.

^h Annual Report of the Comptroller of the Currency, Dec. 1, 1930, pp. 440-448, for years, 1922-30.

ⁱ Federal Reserve Bulletin (1931). Monthly figures are preliminary. Only totals are revised.

^j Revised total for January-November.

TABLE B
STATE COMMERCIAL BANKS

Year	Number in United States (June 30)	Number Suspended ^b (Dec. 31)	Percentage Suspended	Number Failed ^c	Percentage Failed	Liabilities of Failed Banks ^d	Liabilities of All State Commercial Banks	Percentage of Liabilities of Failed Banks to Total
1914	14512 ^e			53	.36	\$ 11,511	\$ 4,353,663 ^e	.86
1915	14598			57	.39	4,820	4,399,902	.11
1916	15450 ^d			93	.15	2,991	5,552,977	.05
1917	15968 ^e			15	.09	3,551	6,799,669 ^e	.06
1918	16596 ^f			12	.07	1,094	7,815,759 ^f	.01
1919	17225			35	.20	7,775	11,701,606	.07
1920	18196			32	.18	11,945	14,009,781	.09
1921	18875	450	2.33	933	1.37	24,810	14,199,099	.17
1922	18232 ^g	909	1.67	906	1.65	73,044	13,064,409 ^g	.56
1923	18045	558	3.00	902	1.11	53,886	14,162,862	.38
1924	17436	654	3.61	899	3.85	182,136	14,816,011	1.21
1925	16983	494	2.83			112,901	15,979,238	.70
1926	16493	831	4.80			144,718	16,597,656	.86
1927	15690 ^h	571	3.51				16,564,989 ^h	
1928	15078	424	2.80				16,291,003	
1929	14437	578	3.85				16,824,315	
1930 ⁱ	13582	1284	8.64				15,269,902	
Totals		6163		1697		\$661,362	\$208,402,517	
Averages			3.60		.91			.46

^a Annual Report of the Comptroller of the Currency (Dec. 3, 1917), Vol. II, pp. 884-886, for years 1914-17.

^b Seventeenth Annual Report of the Federal Reserve Board (1930), p. 131.

^c Annual Report of the Comptroller of the Currency, Dec. 5, 1921, p. 771 and Dec. 1, 1930, p. 770.

^d Includes stock savings banks and trust companies of five states, stock savings banks in four states, and trust companies in one state. See loc. cit., p. 884.

^e Annual Report of the Comptroller of the Currency, Dec. 5, 1921, p. 760, for years 1917-21. Includes stock savings banks for thirteen states and trust companies for eight states.

TABLE C
MUTUAL AND STOCK SAVINGS BANKS

Year	Number in United States (June 30) ^a	Number Suspended	Percentage Suspended	Number Failed	Percentage Failed	Liabilities of Failed Banks	Liabilities of All Savings Banks	Percentage of Liabilities of Failed Banks to Total
1914	1100			7 ^b	.63	\$ 769 ^b	\$ 6,449,463 ^c	.012
1915	1159			5	.43	4,335	5,558,056	.078
1916	1864			3	.16	11,885	5,581,271	.21
1917	1807			1	.06	100	5,938,932 ^d	.002
1918	1819			1	.05	80	6,001,750	.001
1919	1719			2	.12	85	6,452,805	.001
1920	1707						7,125,430	
1921	1707			13	.75	2,756	6,598,031	.04
1922	1685			11 ^e	.65	2,248 ^e	7,935,570 ^f	.03
1923	1647			17	1.02	5,607	8,695,508	.06
1924	1603			33	2.02	11,708	9,288,040	.13
1925	1583						10,006,164	
1926	1524						10,618,734	
1927	1461						10,826,723 ^g	
1928	1407						11,395,356	
1929	1358						11,596,301	
1930	1320						11,816,417	
Totals				93		\$39,553	\$141,884,551	
Averages					.62			.05

^a Annual Report of the Comptroller of the Currency, Dec. 1, 1930, p. 109.

^b Ibid., Dec. 5, 1921, p. 771, for years 1914-21.

^c Computed from Annual Report of the Comptroller of the Currency (Dec. 3, 1917), Vol. II, pp. 885-886, for years 1914-16.

^d Computed from Annual Report of the Comptroller of the Currency, Dec. 5, 1921, p. 761, for years 1917-21.

^e Ibid., Dec. 10, 1926, p. 614, for years 1922-24.

^f Loc. cit., p. 603, computed for years 1922-26.

^g Annual Report of the Comptroller of the Currency, Dec. 1, 1930, pp. 753-754, computed for years 1926-30.

TABLE D
LOAN AND TRUST COMPANIES

Year	Number in United States (June 30) ^a	Number Suspended	Percentage Suspended	Number Failed ^b	Percentage Failed	Liabilities of Failed Companies ^b	Liabilities of All Companies	Percentage of Liabilities of Failed Cos. to Total
1914	1564			9	.57	\$ 8,752	\$ 5,439,531 ^a	.16
1915	1664			9	.54	1,341	6,873,120	.08
1916	1606			3	.19	257	7,028,270	.004
1917	1608			4	.25	2,371	7,899,818	.03
1918	1609			2	.12	1,898	8,317,441 ^a	.02
1919	1377			4	.29	1,631	7,959,996	.02
1920	1408			3	.21	3,978	8,320,018	.05
1921	1474			26	1.73	65,836	8,181,092	.79
1922	1550			35	2.21	17,641	8,533,850 ^a	.21
1923	1643			7	.42	2,818	9,499,259	.03
1924	1664			14	.83	23,868	10,323,777	.23
1925	1680						11,565,549	
1926	1656						12,205,196 ^c	
1927	1647						13,994,756	
1928	1633						15,250,896	
1929	1608						16,155,175	
1930	1564						17,702,660	
Totals				116		\$130,110	\$174,280,404	
Averages					.67			.16

^a Annual Report of the Comptroller of the Currency, Dec. 1, 1930, p. 104.

^b Ibid., Dec. 10, 1926, p. 614.

PRIVATE BANKS

Year	Number in United States	Number Suspended	Percentage Suspended	Number Failed ^b	Percentage Failed	Liabilities of Failed Banks ^b	Liabilities of All Private Banks	Percentage of Liabilities of Failed Banks to Total
1914	1064 ^a			27	2.47	\$11,027	\$ 196,549 ^a	5.31
1915	1056			39	3.63	17,870	177,666	8.91
1916	1014			12	1.17	17,877	181,852	.48
1917	936			15	1.63	5,478	192,937	2.76
1918	1091 ^a			10	.91	7,186	236,566 ^a	2.95
1919	1017			1	.10	100	266,122	.04
1920	799			9	1.11	3,031	212,626	1.41
1921	708			23	3.80	3,044	175,306	1.71
1922	673 ^d			12	1.76	3,000	185,531 ^d	1.59
1923	604			11	1.79	2,239	165,516	1.33
1924	560			31	5.95	5,476	150,943	3.50
1925	523			19	3.61	6,427	155,233	3.98
1926	495			26	4.99	3,105	174,152	1.75
1927	467 ^a			45	8.79	9,342	164,148 ^a	5.38
1928	404			27	6.96	3,222	148,834	2.12
1929	391			25	6.01	2,833	156,490	1.81
1930	361			23	5.99	11,001	114,606	8.76
Totals				360		\$94,805	\$3,055,067	
Averages					2.88			3.01

^a Annual Report of the Comptroller (Dec. 3, 1917) Vol. I, p. 99, Vol. II, p. 888, for years 1914-17. Includes those reporting to the Comptroller.

^b Ibid., Dec. 1, 1930, p. 770.

^c Ibid., Dec. 5, 1921, p. 762, for years 1918-21.

^d Ibid., Dec. 10, 1926, p. 604, for years 1922-26.

^e Ibid., Dec. 1, 1930, pp. 754-755, for years 1927-30.

TABLE F
TOTAL STATE BANKS (COMMERCIAL, SAVINGS, PRIVATE, AND TRUST COMPANIES)

Year	Number in United States ^a	Number Suspended ^b	Percentage Suspended	Number Failed ^c	Percentage Failed	Liabilities of All Failed State Banks and Trust Cos. ^d	Liabilities of All State Banks and Trust Cos.	Percentage of Liabilities of Failed State Banks & Trust Cos. to Total
1914	18240			96	.52	\$ 32,059	\$15,489,207 ^d	.21
1915	18457			110	.59	27,866	16,008,444	.17
1916	19834			41	.21	16,010	18,944,970	.09
1917	20319			35	.17	11,800	20,836,357 ^e	.05
1918	21175			25	.12	10,258	22,371,496	.05
1919	21338			42	.20	9,611	26,390,529	.04
1920	22109			44	.20	18,954	29,667,855	.06
1921	22764	450	1.94	330	1.43	96,125	29,153,928	.33
1922	22140	309	1.38	364	1.62	95,953	29,719,357 ^f	.32
1923	21957	558	2.48	237	1.07	64,550	32,583,145	.20
1924	21263	654	2.98	777	3.63	223,188	34,578,771	.64
1925	20769	494	2.32	440	2.07	118,793	37,706,174	.31
1926	20168	831	3.96	496	2.40	147,823	39,595,738 ^g	.37
1927	19265	571	2.88	689	3.45	206,655	41,550,615	.49
1928	18522	454	2.29	413	2.18	125,784	43,066,089	.29
1929	17794	578	3.15	480	2.63	134,156	44,732,931	.30
1930	16927	1184	6.57	558	3.21	253,694	44,903,585	.56
Totals		6063		5177		\$1,592,694	\$526,627,541	
Averages			2.99		1.49			.30

^a Computed from subtotals. They do not harmonize with the total number of banks as published for the years 1914-23.

^b *Seventeenth Annual Report of the Federal Reserve Board* (1930), p. 131, for years 1921-30. Data for 1931 are compiled from *Federal Reserve Bulletin* and the figures are preliminary. Only totals for 1931 are revised.

^c *Annual Report of the Comptroller of the Currency*, Dec. 1, 1930, p. 770.

^d *Ibid.*, (Dec. 3, 1917) Vol. I, p. 91, for years 1914-17.

^e *Ibid.*, Dec. 6, 1921, p. 153, for 1918-21.

^f *Ibid.*, Dec. 10, 1926, p. 91, for 1922-25.

^g *Ibid.*, Dec. 1, 1930, p. 115, for 1926-30.

1931

January.....	175
February.....	63
March.....	71
April.....	46
May.....	63
June.....	159
July.....	77
August.....	193
September.....	252
October.....	413
November.....	156
December.....	

Year	Total Banks in United States (June 30) ^a	Total Suspended ^b	Percentage Suspended	Total Failed ^c	Percentage Failed	Total Liabilities of All Failed Banks ^e	Total Liabilities of All Banks	Percentage of Liabilities of All Failed Banks to Liabilities of All Banks	Total Deposits of All Suspended Banks ^b	Total Deposits of All Banks (June 30) ^d	Percentage of Deposits of Suspended Banks to Total Deposits of All Banks
1914	26,765			117	.44	\$ 41,833	\$26,971,398 ^a	.15			
1915	27,062			124	.46	40,633	27,804,130	.15			
1916	27,513			54	.20	19,030	32,271,238	.06			
1917	27,923			42	.15	16,582	37,126,765	.04			
1918	28,880			27	.09	12,612	40,726,438	.03			
1919	29,123			43	.15	10,107	47,615,447	.02			
1920	30,139			49	.16	20,884	53,079,108	.04			
1921	30,812	501	1.60	358	1.15	113,426	49,671,390	.23	196,400	35,742,000	.55
1922	30,389	354	1.15	397	1.29	116,220	50,425,367	.23	110,721	37,615,000	.29
1923	30,178	648	2.10	274	.90	84,626	54,034,911	.16	188,701	40,688,000	.46
1924	29,348	776	2.58	915	3.02	297,931	57,144,690	.52	213,338	43,405,000	.49
1925	28,839 ^e	612	2.08	542	1.84	172,043	62,057,037	.28	172,900	47,612,000	.36
1926	28,146 ^f	956	3.28	573	2.00	185,935	64,893,362 ^f	.29	272,488	48,733,000	.54
1927	27,061	662	2.39	831	2.98	266,570	68,132,568	.39	195,891	51,062,000	.37
1928	26,213	491	1.84	484	1.81	158,689	71,574,328	.22	138,642	53,398,000	.26
1929	25,330	642	2.47	549	2.12	181,833	72,172,510	.25	234,532	55,832,000	.43
1930	24,079	1345	5.29	640	2.59	308,985	74,020,124	.42	864,715	54,934,000	1.55
Totals		6987		6019		\$2,047,939	\$889,720,799		\$2,586,388	\$468,661,000	
Averages			2.43		1.24			.23			.51
1931 ^b											
Jan.....	202								78,130		
Feb.....	77								35,123		
Mar.....	86								35,285	51,487,000 ^c	.07 ^a
Apr.....	64								42,417		
May.....	89								43,963		
June.....	167								196,931	51,777,000	.98 ^b
July.....	93								41,334		
Aug.....	158								182,248		
Sept.....	305								236,511		
Oct.....	522								479,831		
Nov.....	169								69,402		
Dec.....	353								319,289		
Total.....	2290								1,750,484		

^a *Eleventh Annual Report of the Federal Reserve Board (1924), p. 120,* for years 1914-24. June 30 for all years except 1915 (June 23) and 1918 (June 29).

^b *Seventeenth Annual Report of the Federal Reserve Board (1930),* p. 131, calendar years 1921-30. For 1931 data are compiled from *Federal Reserve Bulletins*. The totals for 1931 are revised.

^c *Annual Report of the Comptroller of the Currency, Dec. 1, 1930, p. 770.*

^d *Seventeenth Annual Report of the Federal Reserve Board (1930), p. 90.*

^e Computed.

^f *Annual Report of the Comptroller of the Currency, Dec. 1, 1930,* pp. 115, 131, 442-448.

^g March 25.

^h For month only.

TABLE H

Commercial Failures*				
Year	Number of Failures	No. of Business Concerns in the United States	Percentage of Failures	Amount of Liabilities of Failed Concerns
1892	10,344	1,172,705	.88	\$114,044
1893	15,242	1,193,113	1.28	346,780
1894	13,885	1,114,174	1.25	172,993
1895	13,197	1,209,282	1.09	173,196
1896	15,088	1,151,579	1.31	226,096
1897	13,351	1,058,521	1.26	154,332
1898	12,186	1,105,830	1.10	130,663
1899	9,337	1,147,595	.81	90,879
1900	10,774	1,174,300	.92	138,496
1901	11,002	1,219,242	.90	113,092
1902	11,615	1,253,172	.93	117,477
1903	12,069	1,281,481	.94	155,444
1904	12,199	1,320,172	.92	144,202
1905	11,520	1,357,455	.85	102,676
1906	10,682	1,392,949	.77	119,202
1907	11,725	1,418,075	.82	197,383
1908	15,690	1,447,554	1.08	222,316
1909	12,924	1,486,389	.80	154,603
1910	12,652	1,515,143	.80	201,737
1911	13,441	1,525,024	.81	191,066
1912	15,452	1,564,279	.98	203,117
1913	16,037	1,616,517	.99	272,677
1914	18,280	1,655,496	1.10	357,906
1915	22,156	1,674,788	1.32	302,286
1916	16,993	1,707,639	.99	196,216
1917	13,855	1,733,225	.80	182,441
1918	9,982	1,708,061	.58	163,026
1919	6,451	1,710,909	.38	113,291
1920	8,881	1,821,409	.49	295,126
1921	19,652	1,927,304	1.02	627,402
1922	23,676	1,983,106	1.19	623,896
1923	18,718	1,996,004	.94	539,387
1924	20,615	2,047,302	1.01	543,223
1925	21,214	2,113,300	1.05	443,744
1926	21,773	2,158,400	1.01	409,233
1927	23,146	2,171,700	1.07	520,104
1928	23,842	2,199,000	1.08	489,566
1929	22,909	2,212,779	1.04	483,256
1930	26,355	2,183,008	1.21	608,286
Average for 1892-1930			.97	
Average for 1892-1913			1.00	
Average for 1914-1930			.90	
Average for 1921-1930			1.06	

TABLE H (continued)

Bank Failures and Suspensions ^b					
Number of Failures	Number of Suspensions	Total Banks in United States	Percentage of Failures	Percentage Suspended	Total Liabilities of All Failed Banks
86		9,338	.91		\$ 23,794
479		9,492	4.80		117,549
86		9,608	.90		50,480
121		9,818	1.22		25,323
137		9,469	1.43		19,240
160		9,457	1.51		50,506
60		9,485	.63		10,887
38		9,732	.39		12,257
58		10,382	.57		21,733
67		11,406	.58		21,011
45		12,424	.36		10,712
58		13,684	.28		9,716
122		14,850	.82		38,154
79		16,410	.48		23,952
45		17,905	.25		8,790
41		19,746	.21		27,627
156		21,346	.72		232,253
69		22,491	.31		23,365
34		23,095	.14		21,075
59		24,392	.24		19,464
63		25,195	.25		17,322
46		25,993	.18		14,203
117		26,765	.44		41,833
124		27,062	.46		46,633
54		27,513	.20		19,030
42		27,923	.15		16,582
27		28,880	.09		12,612
43		29,123	.15		10,107
49		30,139	.16		20,884
358	501	30,812	1.15	1.16	113,426
397	354	30,389	1.29	1.15	116,220
274	648	30,178	.90	2.10	84,626
915	776	29,348	3.02	2.58	297,931
542	612	28,839	1.84	2.08	172,043
573	956	28,146	2.00	3.28	185,935
831	662	27,061	2.98	2.39	266,570
484	491	26,213	1.81	1.84	158,689
549	642	25,330	2.12	2.47	181,833
640	1345	24,079	2.59	5.29	308,985
Average for 1892-1930			1.01	Av. 2.43	
Average for 1892-1913			.59		
Average for 1914-1930			1.24		
Average for 1921-1930			1.97		

TABLE H (continued)

Commercial Failures		
1931	Number of Failures	Amount of Liabilities of Failed Concerns
Jan.	3,316	94,608,212
Feb.	2,563	59,607,612
Mar.	2,604	60,386,559
Apr.	2,383	50,868,185
May	2,248	53,371,212
June	1,993	51,655,648
July	1,983	60,997,853
Aug.	1,944	53,025,132
Sept.	1,936	47,255,650
Oct.	2,362	70,660,436
Total	23,332	607,436,444

^a *Dun's Review*, Jan. 10, 1931, pp. 6-7, Jan. 8, 1921, p. 18, and current *Reviews* for 1931 data.

^b Compiled from Tables F and G in Appendix, and from *Annual Report of the Comptroller of the Currency* (Dec. 3, 1917), Vol. I, pp. 74-75, 112.

DISCUSSION

FREDERICK A. BRADFORD.—I am sure that we are indebted to Professor Bell and Professor Spahr for their interesting and stimulating papers. I agree much that has been said by both speakers. There are a few points, however, which I should like to discuss, and, as my time is short, I shall confine remarks largely to analyses or conclusions with which I am in disagreement or which appear to me to merit further emphasis.

The analysis of deposits by the individual banker, which Professor Bell suggested as a means of conducting a sounder banking business, is important and, in my opinion, has not hitherto received adequate emphasis. There is only one point which I should like to question in this connection. Professor Bell stated that "business or commercial accounts . . . result from borrowings by corporations and other enterprises which are negotiated through an exchange of business paper for bank credit. The bank's reserve problem is largely connected with these since business accounts are fluctuating and active, highly sensitive to slight changes in business conditions and in public confidence." In the first place, not all business deposits result from borrowings by business enterprises. The larger corporations of the country have not been, generally speaking, greatly in debt to the banks for several years past, yet many of them have maintained large, often excessive, bank balances which would certainly be classified as business deposits. Also, the business deposits created in 1927, as in 1927, as a result of open market purchases by the Reserve Banks do not result from borrowing operations. I believe this point to be important because deposits of this nature which are not a result of commercial borrowing present a difficult investment problem, the banker being inclined to divert such funds into investment channels in view of the slackened demand for commercial accommodation.

In the second place, I doubt if business deposits are often highly sensitive to changes in public confidence. It is the savings and income accounts, on the whole, which have been withdrawn during this past year in large amounts, while business deposits have been much more stable. It should be added, however, that if bank failures continue on a wide scale, business concerns, as well as individuals, will be increasingly likely to withdraw their accounts and hold currency or gold.

I have no other comment to make on Professor Bell's paper, except that I would like to endorse his approval of the recommendations of the Committee on Bank Reserves. I do not agree with the opinion of the Committee that member bank reserves play little or no part in insuring the liquidity and solvency of the member banks, for I believe that required reserves can and should function in this capacity. This is not, however, a criticism of the proposal itself which seems to be eminently satisfactory.

In Professor Spahr's analysis of the causes of bank failures, I feel that he has failed sufficiently to distinguish between those causes which are of far-reaching importance and those which are of minor or secondary significance. Thus, in the discussion of the defects which are inherent in the organic structure of our commercial banks and banking system, no particular stress is laid on any one or more of the eleven defects described, yet it seems apparent

to me that the poor quality of the management, of the smaller banks especially, is of outstanding significance, while the variety of jurisdictions under which our banks operate, the excessive number of banks, and, in some states, the inferior brand of bank supervision, are also more important than the other seven defects. If those mentioned could be remedied, the others would largely take care of themselves. I have little sympathy, for example, with the notion that it is impossible for a bank in a one-crop region to diversify its business. Under sound management such a bank would insist on holding a fair proportion of its resources in open market paper and high-grade, marketable bonds, while confining its local loans to the very best risks. I also question the increase in investments, per se, as a legitimate cause of bank failures. So long as the investments are in local mortgages, the bank does not, it is true, strengthen its position, but probably weakens it. Investment in high-grade marketable securities, however, merely by helping to attain diversification would have tended to decrease rather than to increase the number of small country bank failures during the period prior to 1930. Finally, although I am quite aware of the danger of investment affiliates of commercial banks, I am not convinced that they have played any great part in the recent debacle of bank failures, except in the case of the Bank of the United States.

Inadequate control of credit by the Federal Reserve authorities—Professor Spahr's second major cause of bank failures—seems to me to have been somewhat overemphasized. It is possible that more scientific reserve requirements for member banks, of the sort recommended by the committee on bank reserves already referred to, might have prevented a part of the speculative excesses which brought many country banks into difficulties, and that more timely action by the reserve authorities might, at times, have improved the banking situation. It seems probable, however, that the majority of bank failures which did occur would have occurred in any event, having had their origin largely in other sources, and that the inadequacy of credit control by the reserve authorities has been, at best, a cause of minor significance. Not that the problem of credit control is not of vital importance, quite the contrary, but I am inclined to doubt its relevance to the present discussion.

It is in the causes lying outside the banking field that the most potent source of our recent banking difficulties is to be found. The list of such causes presented by Professor Spahr is entirely satisfactory, my only objection being that I feel it to have been deserving of more emphasis, in relation to the other causes, than it received.

With regard to the possible correctives of the unsatisfactory banking situation in this country, it seems to me that permissive branch banking on a rather wide scale and higher capital requirements for unit banks are more expedient than the other changes which Professor Spahr has suggested and would probably secure the desired results. I never tire of quoting Hartley Withers to the effect that "good banking is produced, not by good laws, but by good bankers." When the bankers of this country, taken in the aggregate, learn that their first duty is to their depositors, not their borrowers, and that no loan or investment which jeopardizes the safety of their depositors' funds is justifiable, there will be comparatively few failures, whatever the banking laws may be.

theoretically, the smallest unit banks can be soundly run, but often, in practice, they are not. It would seem desirable, therefore, to permit branch banking and to raise the minimum capital requirements for unit banks as the most probable and expedient methods of securing by legislation the type of bank management which is essential to a good banking system.

G. W. DOWRIE.—The two papers to which we have just listened raise the question as to how failure-proof we have a right to expect our banking system to be. It is usually conceded that there have been occasional bank failures that could scarcely have been avoided by the most skillful management. The unblemished record of the English banking system, however, and the ability of certain of our American banks to carry on successfully in situations to which their competitors have succumbed warrant a strict insistence upon our building a banking system which is virtually immune from failure.

It is obvious that ours is a fair-weather system. In spite of its weaknesses makes a fairly good showing when economic conditions are stable, but in time of crisis, particularly one whose severity is greatly multiplied by the vicious aftermath of a world war, only the superior institutions are able to survive.

Even if we insist that banks should be able to weather any sort of condition that comes, it is only fair to them as it is to other members of our economic organization that sound and effective mechanisms be devised for the stabilization of business at home and that the closest international financial co-operation be fostered to the end that external disturbances may be reduced to a minimum.

I quite agree with the two papers, however, that even with a stable economic environment our banking system needs considerable improvement. We must not, however, fall to worshipping mechanisms such as laws, regulations, and external supervision. The only dependable method for achieving better banking is to develop better bankers. Sound banks are not necessarily member banks, national banks, branch banks, or large banks. When all of the acts of the present banking tragedy have been written it will be found that no type or system of banking was free from the recklessness, greed, stupidity, and dishonesty which have been present in the existing situation. It goes without saying that a bank with larger resources, more careful supervision, greater opportunity to diversify risks, and ability to command better managerial talent, other things being equal, will be better able to weather storms than even such an institution will subject the stockholders and patrons to heavy losses unless it is wisely and honestly managed. The ability, conservatism, and highly developed sense of stewardship of the English banks are enabling them to weather unperturbed storms even more violent than our own banks are encountering.

While there is much to be said for a single national system of banks the case is not quite so one-sided as Dr. Spahr would have us believe. We have already dumped upon the central government so many of our local problems that it is unable to grapple with them effectively. While some of our state laws and supervision systems are not quite up to the standards of the national system I have found that the plane upon which banking is done in any given

community is pretty much the same for national and state banks. The existence of a dual system has permitted better adaptation to local needs and, through the interchange of ideas, has resulted in greater progress. As has been the case with state-wide branch banking, one state, California, has served as the laboratory without the whole country having been subjected to the necessity of experimenting with a new type of banking structure.

I quite agree with Dr. Spahr that the small bank should be eliminated. Branch banking be given a somewhat freer hand, that stricter, as well as more scientifically devised, regulations be made with respect to loans, deposits and reserves, and that a better type of supervision be provided. It is still desirable to emphasize the fact, however, that the best of regulations and the ablest of supervision will not make our banks failure-proof in the face of stupid and dishonest management.

Dr. Spahr's insistence that every commercial bank should belong to the Federal Reserve system meets with my approval provided he confines the term "bank" to those institutions that are commercial in fact as well as in name. Many of those banks that are still outside of the system do so small a volume of commercial banking as scarcely to warrant Reserve bank membership.

As for the stricter regulation of the investment departments and investment affiliates of banks, I would go a step further and insist that unless this type of financial service can be rendered without bringing distrust upon the whole institution it might better be denied to our banks. The department service in finance is in itself a thoroughly commendable one and I see no fundamental reason for denying to either qualified national or state institutions the right to engage in the whole gamut of financial services, provided that a uniformly high standard is maintained in every department.

I share Professor Bell's high opinion of the changes in the reserve requirements proposed by the Committee on reserves of the Federal Reserve system. Our present antiquated classifications and rigid system of percentages have to some extent defeated the very purposes for which legal reserve requirements are prescribed. One is inclined to wonder, however, if the Committee has not been too liberal with respect to the leeway given to banks outside of Federal Reserve cities regarding the location of their reserves. Furthermore, since the committee's test period expired, an extraordinary situation has arisen in which in the face of an increase of currency due to hoarding there has been a decline in both the volume and activity of deposits. In such a situation, the member reserve requirements do not constitute a check upon expansion.

My conclusion is that we should perfect our banking laws and the quality of supervision to the highest degree but that we should regard these as only of minor importance in our quest for a failure-proof banking system. This latter condition we cannot achieve until we have placed only good bankers in charge of all of our banking institutions.

JOHN F. HART — I am very much impressed with the two papers just presented. Anyone the least bit familiar with statistics on banks and banking will appreciate the difficulties encountered by Professors Bell and Spahr in working up their data. I feel that the material has been handled very skillfully. Professor Bell has presented helpful material pertaining to our bank reserve

and has brought out the economic importance of revision of our present laws relating to reserves. I think that the present suggested changes in reserve requirements of banks, however helpful they may be, can at best be only a temporary relief. They are attempts to cure only one part of a diseased body, when probably the entire system needs medical attention. Professor Spahr's paper on bank failures builds a very strong case for bank reform.

It is likely that we shall pull through this present depression in a year or so and shall then feel that our banking system is not so bad after all. However, the record of the past ten years will stand as a monument to costly experimentation. We have witnessed the inadequacy of our banking laws to meet national emergencies. I am well aware that, as has been pointed out, making laws do not make good banking, but that good banking is attributable to the bankers themselves. Yet we have drawn up for the bankers elaborate codes which would attempt to set strict limits on the bankers. That these limits have been overstepped is common knowledge. The one paramount object to be desired in any banking system is adequate and safe banking. It is hard to conceive how this can be achieved with forty-eight different experimental stations, each with its own individual laws, as we have in this country. I am in accord with Professor Spahr's contention that a system of branch banking is a solution. I do not believe that branch banking is a panacea, yet I feel that it would provide a united front which might offer an opportunity for uniformity of control. Banking, as now carried on, is essentially interstate in character. We have been altogether too individualistic and unco-operative in this business, as is witnessed in practically every banking community in the entire country. I feel that the price which is now being paid is altogether too high for a perpetuation and continuation of our present costly system. The problem is immediate and the sooner we can aid and encourage banking reform the sooner we shall be relieved of one of the real causes which have aided in bringing about a national calamity.

HOWARD H. PRESTON.—With a limited amount of time at my disposal it is possible to consider all of the many points raised by the very able and suggestive papers of Professors Spahr and Bell. Consequently my comments will be limited to a discussion of problems of banking structure as presented by Professor Spahr.

Experience in recent years has demonstrated the soundness of Professor Spahr's proposal for rigid supervision of non-commercial banking affiliates. I agree with him also regarding segregation of savings deposits and their investment along lines laid down in the best savings banking laws. It is true, however, as Professor Bell has so ably brought out in his analysis of the nature and classification of bank deposits, that time deposits are by no means homogeneous. A sound segregation law should limit the protection to savings accounts and should not include all classes of time deposits, which may include large capital accounts. More than twenty years of experience have convinced the public and most bankers in California and Oregon of the advantages of segregation even when handicapped by unsatisfactory classification of accounts.

In advocating the abolition of state banking systems and the extension of

branch banking Professor Spahr deserves congratulation for his straight forward and courageous stand.

The proposal to bring all commercial banks under national control is not new, but was brought into prominence some months ago when advocated by Owen D. Young before the Senate Committee on Banking and Currency. It must be admitted that Gresham's law has operated in the field of banking. There has been open to bankers the choice of two codes under which they might operate their banks. Too often they have chosen the one with lower capital requirements or looser supervision. Our overbanked condition in many states can be attributed to laxity in laws and the competition for numbers under two systems. Against this must be set the gains from a development point of view of experimentation and freedom from monopolistic control of banking resources.

If we concede that Congress has the power to establish a single banking system, we must still recognize that much straw must be threshed before such a far-reaching proposal can become the law of the land. Meantime, as a practical proposition, it seems most desirable to move in the direction of a single system through standardization of state banking legislation and supervision. Modern control of state banking is relatively new. The pre-Civil War state laws were rendered obsolete by the passage of the national banking act, especially the amendment taxing the state bank notes out of existence.

Existing banking codes in the seven states comprising the Twelfth Federal Reserve District are barely a quarter of a century old. The same condition, with modification, is typical generally. In recent years the trend of state legislation and supervision has been toward decidedly higher standards. The old competitive spirit has disappeared. In its stead we find co-operation with the comptroller's department and a desire to bring the laws up to the best standards of the national banking act. In the matter of capital alone, states have adopted the minimum requirements of the national law.

In my own state of Washington the past decade has witnessed a distinct trend toward co-ordination of banking policy. Perhaps more real progress may be made by concentrating our energy upon bringing up the standard of state banking than in looking toward the ideal but somewhat distant and uncertain goal of a single national system of commercial banking.

Professor Spahr's proposal for branch banking deserves support. Moreover, we should establish a national policy upon branch and group banking. The McFadden Act in substance declared against intercommunity branch banking and left our national banks subject to state legislation in the establishment of city branches. The result is that in many cities where branch banking is illegal, e.g., Seattle, group banking has become the dominant form. It is generally conceded that branch banking would be more economic if permitted. The result of the present laws is to give us groups, many of which are equivalent to branches.

Multiple office banking—whether in the form of an administratively centralized group or a branch system—may bring greater safety and stability. Group banking has been a source of strength to banks in the Ninth Federal Reserve District in recent months. The Union Securities Company of Spokane and its successor, the Old National Corporation, have brought all of the bank

y controlled through the past decade of economic readjustment without i. One of the leading lumber manufacturing communities in Washington sustained two bank failures in recent weeks. The sole remaining bank in largest city of the district is a member of a strong group with headquarters Seattle. Its group affiliation has unquestionably contributed to public confidence in its stability.

Branch and group banking can offer better, as well as safer, banking service to the small community. In fact, it appears necessary, if some of our small towns are to have local banking facilities, to permit branch banking in some towns. The solution ordinarily proposed for our overbanked condition is consolidation. Many real gains have been achieved by consolidation, but the limits of consolidation are fairly soon reached. Numerous small towns are already reduced to a single bank. For instance, a check of the banks in operation in Washington at the end of 1928 showed 162 out of a total of 847 state and national banks operating in towns where there was no other bank. Many of these were substantial and prosperous banks, but a large number were too small to operate successfully on the banking business alone.

Sixty-six of the 162 banks in question had total resources of less than \$20,000; 9 were below \$100,000 in total resources. Only 27 of the 162 banks serving the local field to themselves were in the half-million dollar class or above. What can be done with the one-bank town where the bank is too small to provide safe and profitable banking service to the community? Two solutions appear to be possible: intercommunity consolidation, or branch bank-

The state banking department in Washington has adopted a general policy of fewer and stronger banks. (The majority of small banks were state chartered.) Working constructively upon this policy, the department has been able to complete only three intercommunity mergers. It would not be a serious hardship in many more cases to merge banks so that they would be limited to trade areas of sufficient size to support a bank adequately.

It is inevitable, however, that the agricultural sections of the United States and Canada will have a larger number of banking offices. Despite the widening of the trade area by improved roads and the use of the automobile, the small town is still the center of business and social life to a large proportion of our rural population. Canada, today, has almost double the number of banking offices per capita that we have in the United States. A branch bank can be maintained far more economically than an independent bank. This points to branches as a method of providing banking services to small towns. Some states, e.g., Iowa, have already authorized branch "banklets"—branches only in towns where no independent bank is in operation.

While recognizing the extension of branch banking as inevitable and desirable, an analysis of the recent past suggests that we must proceed with caution. Branch and group systems have been thrown together too rapidly. Systems have been extended faster than the units could be integrated. Life-long unit bankers have been tempted by high prices for their banks and higher salaries than they have dared to pay themselves to become part of a group branch system. But they cannot adjust overnight to the new order of

The normal procedure in building branch systems in California has been through purchase of existing banks. Group systems have been formed in the same manner. Often the price paid was exorbitant. Speculation in all bank stocks was a characteristic of the "new era" days that ended in the closing weeks of 1929. Branch and group systems were especially subject to speculative interest. The burden of the excessive purchase price of banks was partially passed on to the public.

Today we may find branch systems loaded with heavy overhead, controlled by absentee owners, unable to unify and co-ordinate the management and operations. The making over of a system of unit banking into branch banking will bring in its train grave problems. It will require decades, not years, to accomplish it successfully.

Sooner or later Congress must decide a national policy regarding branch and group banking. The information obtained at the 1930 and 1931 hearings of the House and Senate Committees will soon be supplemented by the findings of the Federal Reserve Board's Committee on Branch, Group, and Chain Banking. With this and other available information a sound policy should be formulated. In the formulation of this policy bankers must assist, but not dictate. Senator Glass has said that all of the opposition to branch banking has come from bankers and bankers' organizations.

Some of that opposition is gone. One of the most militant antibranch banking organizations was the Chicago and Cook County Bankers' Association, composed principally of outlying banks. Wholesale failures have depleted its ranks; its secretary, who led the fight for the Hull amendments to the McFadden Act which delayed passage of that bill, has found employment elsewhere. The California League of Independent Bankers has dissolved. Less partisanship has been the rule in bankers' associations recently.

Perhaps the first branch banking question to settle is the area over which a bank may extend its branches. City branches should be allowed universally without regard to state law. The dream of nation-wide branch banking is over. Probably the first step should be to limit branches to state lines or contiguous territory. Trade area branches may be feasible if the trade area is narrowly defined at first. In any event, branch expansion should be subject to restriction and control.

Group banking should be brought strictly under the supervision of the comptroller where any member of the group is a national bank. Soundly managed groups add strength. The evils of unsound management have been demonstrated in such groups as the Bankers' Holding Corporation of Seattle, or the Caldwell group of Nashville. These experiences demonstrated that group membership may be a disastrous liability to a successful local bank drawn into weak or speculative company through group affiliation.

Finally, I would agree heartily with the previous speakers who have stressed management as a solution of bank failures. Thousands of unit banks have successfully weathered the storm and stress of 1930 and 1931, years whose wholesale failures have brought condemnation upon our present system. At the same time, poorly-administered branch and group systems have gone down with disastrous results. A changed banking structure alone, therefore, would not be a guarantee of stability.

SESSION ON THE CHANGING CHARACTER OF THE TRANSPORTATION SYSTEM

TRANSPORTATION BY RAIL AND OTHERWISE

By J. B. EASTMAN

Interstate Commerce Commission

This is a personal statement and in no way an official pronouncement behalf of the Commission of which I am a member. The present railroad situation furnishes wide opportunity for discussion. In the limited time available I shall confine my comments to a single phase.

The economic depression has brought grief to the railroad industry, it has to most other industries. Severe shrinkage in traffic has produced a shrinkage in earnings, to the distress of investors. This distress has been augmented by fear that much of the decline in traffic is due, not to the depression alone, but to new and growing competition with other forms of transportation, and hence may be permanent. We hear it said that the railroad industry has changed from a monopolistic to a competitive industry. It is even suggested that because of this change it may well to relieve the railroads in large measure from what is said to be a heavy burden of public regulation. ✓

Before discussing the present competition, let me, in the interests of historical accuracy, point out that competition has always been a most important factor in the railroad industry of this country, to such an extent that railroads have often been its victims. A recent examination into the matter leads me to say without hesitation that from the time when public regulation of railroads began, it was directed quite as much against evils resulting from competition as against evils resulting from monopoly. In the early decades of our railroad history a strictly laissez faire policy was followed. Competition was the sole regulating force relied upon. Railroad construction and the competition of railroads with each other were encouraged to the limit, often by liberal federal, state, or municipal grants in aid of construction. Competition with water carriers also existed. State attempts at regulation began in the sixties, and the Interstate Commerce Commission was established in 1887; but there was no effective regulation of interstate rates until early in this century.

The laissez faire policy had two marked results. One was the financial ruin of many railroads. The other was the creation of widespread and most flagrant discriminations in railroad rates and charges. It may be that holders of railroad securities long for the "good old days" when railroads were free from the curse of public regulation. If so, they have not read their railroad history. As a result of the policy of free construction, open competition, and non-regulation, a host of railroads went

bankrupt following the panic of 1873. In 1891 the English writer, Asworth, gave this example of the results of unrestrained American railway competition:

Between Chicago and Cairo, a distance of 865 miles, there are 22 railway companies whose lines cross that of the Illinois Central. Eighteen out of 22 passed into the hands of receivers since 1874.

In 1888, Charles Francis Adams wrote:

That the general railroad situation of the country is at present unsatisfactory is apparent. Stockholders are complaining; directors are bewildered; bankers are frightened.

In 1898, Schoonmaker, a former member of the Commission, said:

Volumes have been written upon the evils of competition; millions of dollars have been spent upon compacts between railroads in futile attempts to regulate competition; and millions more have been sacrificed every year in the strifes of ruinous competition. But the evil will go on until the power that works the mischief is brought into subjection.

In 1897, a writer in the *New York Sun* described the "Plight of the Railroads" as follows:

Loss of earnings, reduction of rates below the paying point, actual loss of passenger traffic, deterioration of roadbed, reduction in the number of employees, others working half time, receiverships, foreclosure sales, practically half of this enormous investment bringing no returns, and the blight of insolvency settling down upon our entire system.

Going into more detail he said:

The latest report shows that 70 per cent, or over two-thirds (an aggregate of nearly \$8,500,000,000), of all the outstanding stock of these corporations paid nothing in 1895. The same is true of 17 per cent of the bonds. A careful study of these railway budgets would bring out the appalling fact that probably half of these investments are non-productive—certainly five thousand millions of them. The gloomy list of non-dividend-paying stocks has of late years been gaining from about 60 per cent ten years ago to upward of 70 per cent now.

The effect of unregulated competition upon the railroad users was thus summarized by Charles Francis Adams, who had had experience both as a railroad commissioner of Massachusetts and as president of the Union Pacific Railroad:

There were certain localities in the country known as railroad centres; and these railroad centres were stimulated into an undue growth from the fact that competition was limited to them. The principles of free trade did not have full play; they were confined to favored localities. Hence resulted two things: in the first place the community suffered; then the railroads. Under

the hard stress of local and through competition the most glaring inequalities were developed. The work of the railroad centres was done at a nominal profit, while the corporations recompensed themselves by extorting from other points where competition did not have to be met, the highest profit which business could be made to pay. It thus gradually became apparent, although men were very slow to take in the fact, that immense and invaluable as were the results in many respects secured through unlimited railroad competition, yet so far as the essential matter of securing to all reasonable and equal rates of payment for similar services performed was involved, it did not produce the effect confidently expected of it. On the contrary, it led directly to systematic discriminations and wild fluctuations, and the more active the competition was, the more oppressive the discriminations became and the less possible was it to estimate the fluctuations.

In the eyes of those managing them the railroads were mere private money-making enterprises. They acted accordingly. If they were forced to compete, they competed savagely and without regard to consequences;—where they were free from competition, they exacted the uttermost farthing. There naturally ensued a system of sudden fluctuations and inequitable local discriminations which has scarcely ever been equalled and which was well-nigh intolerable.

Besides all this, however, competition led to favoritism of the grossest character—men or business firms whose shipments by rail were large could command their own terms, as compared with those whose shipments were small. The most irritating as well as wrongful inequalities were thus made common all over the land.

The widespread practice of rebating which existed until 1906 and its baneful effects are too well known to require comment. The books and discussions of the eighties and nineties are full of the evil consequences of unregulated competition both to the public and to the railroads, and they dilate upon the difficulty if not impossibility of avoiding such consequences without the intervention of public authority.

I have indulged in this reference to history for two reasons: first, to show that there is nothing new about competition in the transportation industry; and, second, to indicate its dangers unless brought under effective public control. Two other facts demonstrated by railroad experience should be mentioned. One is that competition is likely to be especially severe and destructive in a time of economic depression, and the other is that the most dangerous and unprincipled competitors are usually those which are in the worst financial condition.

The present competition in the transportation industry differs from that of the past in at least one important respect. Heretofore competition has chiefly been among the railroads themselves, with the exception of some competition from water carriers. There has now been added the direct competition of highway motor vehicles, pipe lines, and airplanes, and the indirect competition of electric central power stations and trans-

mission lines. A further new feature is that to a very important extent, in the case of motor vehicles, this competition is not offered by common carriers but by vehicles owned or hired by the users. The privately-owned automobile has had a more serious effect than the common-carrier bus upon railroad passenger traffic, and trucks owned or hired by shippers have likewise had a more serious effect than common-carrier truck lines upon railroad freight traffic.

Railroad passenger traffic has suffered very severely from the new competition. In an exhibit recently filed in a case now pending, Professor Cunningham of Harvard University estimates that in the five years, 1921-25, the freight traffic of railroads in the Eastern District earned 4.994 per cent on the Commission's tentative valuation and their passenger traffic 2.690 per cent. In the five years, 1926-30, the corresponding earnings were 6.678 per cent for freight and 0.778 per cent for passenger. In the Southern District the earnings in the first period were 6.157 per cent for freight and 1.828 per cent for passenger, whereas in the second period they were 7.088 per cent and a deficit of 2.787 per cent, respectively. Any one interested in specific illustrations of the inroads made by the new forms of competition on railroad freight service will find much data in the last annual report of the Commission at pages 98-107, inclusive.

It is plain that the new competition is and will continue to be a factor in railroad operations which must be reckoned with. However, the "plight of the railroads" is by no means a new topic of discussion. In their long history there have been many plights from which the railroads have safely emerged. There are many measures that can be taken to meet the new conditions and protect railroad earnings. On the one hand there are changes in railroad policies and methods, and on the other, legislation. Both are important, but the changes in policies and methods are probably the more important. As a preliminary to the discussion which follows, it is no doubt unnecessary to say that I am not an expert in railroad operation. None of the suggestions which I shall offer is original with me. They are largely gleanings from the thought of others.

I have referred to the competition of railroads with each other which for many decades was so savage and disastrous. The strengthening of the federal regulatory statutes, which began in 1906, continued in 1910, and culminated in 1920, greatly improved this situation. Direct rebates have been abolished, and while rate wars have threatened from time to time, they have practically been eliminated. Keen competition between railroads, however, still exists, and it exercises an adverse effect on aggregate earnings through both service and rates. It increases cost of service in many ways—through unnecessary duplications, circuitous routing, expensive solicitation and advertising, wasteful terminal opera-

ns, unremunerative storage of freight, undue liberality in various advances to shippers, laxity in enforcement of demurrage rules, and the e. In the case of rates, the ability of large shippers located at traffic centers to shift traffic from one rival route to another, popularly known the "traffic club," leads at times to unwarranted reductions but more ten to a timidity in initiating increases which are capable of justification. Of late the competition which produces such results, in both service and rates, has shown a tendency to become more intense rather than the reverse.

The thought suggests itself that the rapidly growing competition from outside sources furnishes a compelling reason which has not hitherto existed for some abatement of competition within the railroad industry; that is to say, for a greater degree of co-operation on the part of railroad managements which will reduce competitive wastes in service, and thus lower costs materially, and also reduce timidity in dealing with various issues. In the past such co-operation might have led the public to fear that it would mean loss of enterprise and pave the way to extortion. But now the existence of aggressive competition from other forms of transportation would seem to furnish a safeguard against such results. It is, in other words, a peculiarly appropriate time for the railroads to abate civil strife and unite in common defense against the enemy at the gate. This will involve a change of policy on the part of executives running counter to railroad traditions which are bred in the bone, but the circumstances now existing recall Benjamin Franklin's observation to the signers of the Declaration of Independence that if they did not hang together they would all hang separately. In view of the present provisions of the Interstate Commerce Act, particularly with respect to pooling, it may be doubted whether the law furnishes any obstacle to such co-operation; but if need be, the law can be revised.

The necessity for the co-operation which I have in mind exists particularly as to passenger traffic. Certainly that service must have drastic treatment. It is impossible to blame its financial weakness upon public regulation. Not a soul suggests that any relief can be obtained from an increase in fares, with the possible exception of commutation fares. Yet the earnings are such that it burdens all other forms of service. Clearly the pooling of traffic and the joint use of facilities in every feasible and reasonable way, with a view to the elimination of all unnecessary duplication in service and expense, is one remedy which is indicated. And although the need may not be so great in the case of freight service, the situation as to less-than-carload traffic is very like the passenger situation, and there are many opportunities for savings which apply to all freight traffic. Co-operation can no doubt be extended with advantage so to research and experimentation with new kinds of equipment and

accounts, but I question whether they wish it eliminated. So far as service is concerned, there is practically no federal jurisdiction over passenger service, except to permit pooling, and such control as is provided over freight service is exercised in entire harmony with the Car Service Section of the American Railway Association. Federal regulation of rates has done away with rebates, prevented destructive rate wars, eliminated preferential state-made rates, and permitted a general level more than 50 per cent higher than the pre-war basis, in sharp contrast with prevailing price levels on most commodities. At the same time the railroads have been permitted a very large measure of freedom in reducing rates to meet new competitive conditions. They do not like federal rate regulation in all respects, but if they will refresh their recollection of the conditions which prevailed when no such regulation existed, I doubt whether they or even their security holders would wish it eliminated or even greatly curtailed. Recapture of excess earnings is a thorn in the flesh, although there has been little actual recapture so far; but the Commission is recommending the repeal of this feature of the law.

Turning to the new forms of transportation, it is contended by railroad protagonists that trucks and busses, water carriers, and airplanes are, in effect, subsidized by the federal and state governments. This contention is as vigorously disputed by the friends of these other carriers. My hope is that this question will be set at rest by a thorough and impartial investigation under authority of Congress. If direct or virtual public subsidies place competition on an unfair basis, the situation should be corrected. But first we must have accurate knowledge of the facts.

There is a form of public regulation which is very important and which has to do with safety and convenience in the use of the highways, and it concerns itself with the size of vehicles, their weight under lading, indemnity bonds, drivers' licenses, and other similar matters. The states have been active in such regulation, and their requirements affect both intrastate and interstate operations. They differ very widely. Obviously a greater degree of uniformity is desirable, and it may be that this is a field which should be occupied in whole or in part by federal authority. Certainly this possibility should be thoroughly explored.

The states have likewise been active in the regulation of bus, and to some extent truck, rates and service, and in requiring certificates of public convenience and necessity as a prerequisite to operation, with a view to avoiding unnecessary duplication of service and destructive competition. So far as interstate operations are concerned, this field is wholly unoccupied. My own belief is that a beginning should be made in interstate regulation as soon as possible. It should, no doubt, be a modest start. When once there has been actual experience with such regulation, the need for extending and expanding it can be better determined. In the

case of truck operation, the fact that so much of it is not conducted on a common-carrier basis presents unusual difficulties. A similar difficulty exists in the case of the port-to-port rates of water carriers, which are now largely unregulated, this difficulty being due to the operation of tramp steamships and other contract carriers. However, it seems not unlikely that the water carriers will themselves ask for public regulation of these rates, since they are suffering, just as the railroads did in the past, from rate wars and destructive competition.

Some change in the laws to permit freer use by railroads of motor trucks and busses as auxiliaries, and also to bring such operations within the scope of public regulation, may be desirable. This subject is now under consideration by the Commission in a special investigation, and I shall await the outcome of that inquiry before expressing definite views.

Summing up the situation, the new competition by which the railroads are confronted does very naturally create apprehension with respect to future railroad earnings. However, this competition affects only a lesser part of railroad traffic. Moreover, if the apprehension leads, as it now seems that it will, to a stimulation, first, of co-operation of railroads with each other; second, to a like stimulation of initiative and enterprise in re-adjusting service and rates to meet the new conditions; and, finally, to a thorough consideration of the need for extension or modification of the system of public regulation, my own belief is that the railroads will be able to work out their salvation and emerge from this plight as they have from others in the past.

OUR CHANGING TRANSPORTATION SYSTEM

By STUART DAGGETT
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Most students who consider our changing transportation systems are impressed with the competitive aspects of modern transport which Mr. Eastman has so clearly set forth. Whatever modern facilities do or do not do, they certainly compete with one another. They compete directly, as when the railroads entering Chicago offer a suburban commutation service in competition with electric and bus lines connecting the city and its suburbs, or when the railways and the Great Lakes carriers dispute for the transportation of coal. Or they do it indirectly, as when pipe lines carrying fuel oil or natural gas seek to take the place of rail or water lines interested in the carriage of coal. The competition is perfectly apparent, although I imagine that the fact of competition still has a certain freshness to older men brought up on Hadley. "On either side of the Atlantic," Hadley sagely remarked in 1885, "most persons who have really looked into the subject have come to regard railroads as a sort of natural monopoly, not regulated by the ordinary laws of trade, and needing to be closely watched by public authority." I am not sure that Hadley was right when he wrote, at least in so far as the "natural monopoly" part of his dictum is concerned, or that his statement has ever been fully true since; but it is not important to discuss this. Let us agree that the striking characteristic of the present transportation situation is, that there is competition to a degree which suggests the philosophy of Darwin rather than that of Hadley. Or let us say that the different means of transportation which we possess may sometime lie down in peace together, but that we are not yet certain who will be inside.

I must make distinctions nevertheless in dealing with different forms of transportation. We hear much, for instance, of the development of aircraft, and the growth of the air industry has been dramatic enough. The contrast between the maximum speed of flight and the maximum speed of vehicles used in ordinary land and water transport, the visibility and audibility of the airplane, and above all, the unknown possibilities of the air machine impress the imagination. It is only fair to say, however, that the airplane and the airship are still infants, quite incapable of carrying any important part of the burden of modern traffic. Until they cease to report the volume of their freight in pounds, and their passengers in thousands, they can be excluded from discussions which treat of hundreds of millions of passengers and tons of freight.

It is also true that the amount of movement on inland waterways is except for the Great Lakes, relatively small. The two developments of inland waterway transportation which have received most attention dur

ing recent years are those of the Mississippi River and of the Panama Canal, if the latter can fairly be called "inland." The Panama Canal stood on the government books in 1980 at \$586,000,000; and Mr. Woodlock has estimated the government outlay upon the Mississippi and Ohio Rivers, excluding expenditures not for navigation, to have reached the sum of \$500,000,000 by the end of 1980. The physical features of both river and canal are impressive. Yet neither figures largely in the transportation work of the United States. During the calendar year 1980, less than three million tons of freight passed through the Panama Canal from United States Atlantic and Gulf ports to points on the west coast of the United States and Canada, and less than seven million tons in the reverse direction. This is to be compared with a total of two billion tons transported by Class I railroads during the same year. The figures for the Mississippi are even smaller. During 1980 the Inland Waterways Corporation, which is the principal, though not the only, carrier upon this stream, reported a revenue of \$5,852,655 and a total tonnage of 1,424,477. The Northwestern Pacific Railroad in California, which has an operated mileage of only 634 miles and is a minor subsidiary of the Southern Pacific, exceeded this total revenue in 1929 by \$884,108.

I suspect that the importance attached to the Mississippi River development, at least, is due to the effect that government success in this enterprise may have in determining future government policies, rather than to the commercial significance of the project itself. There is, of course, the plan for the development of the St. Lawrence. And if this can stand upon its own feet, there are plans for government ownership, or for regulation through partial government ownership which go back to the report of the Windom Committee of 1874, but which have been revived by the report last October of the committee on public utilities of the Progressive Conference. The report of this committee has been assailed as emanating from socialists who desire to socialize, entirely, American business. This may or may not be true, and it may or may not be important. It is to be presumed in any case that the experience of the government upon the Mississippi will figure in the debate when convinced advocates seek to extend the business activities of government, on the Mississippi or elsewhere. Meanwhile the opponents of government in business, and the railroads in particular, rally to the attack.

After all, the real meat in the coconut is supplied by transport over the public roads, not by transport over the water or through the air, or even by pipe line transportation. This transport is of respectable antiquity. There were steam automobiles in London, and plying between London and its suburbs, as early as 1880. Some of the most interesting technical developments in the steam engine, as, for instance, those related to the multitubular boiler, owe their perfection as much to experiments

with road engines as to experiments with engines running upon rails. Motor transport also reminds us that public regulation, however frequently beneficial, may also be destructive in its effect. According to early English law, motor vehicles upon the public roads were limited to a speed of four miles an hour; they were required to stop when a pedestrian signaled with his hand; they might not blow off steam; they must be manned by three men, and of these one must precede the vehicle carrying a red flag. Such regulations stifled motor transport in England for many years, and stand as an example of the possibilities of unwise control up to the present time. Mr. Eastman has not indicated the volume of transport now accomplished by motor vehicle and I am at a loss to calculate it for the reason that most motor vehicle owners make no report of freight or passengers carried, and our knowledge of the habits of automobiles and trucks comes from traffic counts taken by local bodies or from surveys conducted by the United States Bureau of Public Roads. The automobile industry itself estimates, however, that the total number of passengers carried by common carrier and sightseeing busses in 1930 was 1,778 millions, and the total passenger miles were 11,180 millions. The corresponding figures for the Class I railways of the United States were 704 millions and 27 billions. These statistics relate only to 48,250 busses and take no account of the private automobile. With respect to freight, Commissioner Brainerd has estimated the capacity of the roads of the country at 100 billion tons. The actual movement is, of course, only a fraction of this amount, but it is considerable, and my attention has been caught by one single set of figures which I will give you. According to the records of the National Live Stock Marketing Association, one-fifth of the livestock entering Kansas City in 1930 came in by truck, one-quarter of that entering Omaha, one-half of that entering Cincinnati, and two-thirds of that reaching Indianapolis. In these and in all other reported cases, the percentage entering by truck in 1930 exceeded the percentage of the year before. I may add to these facts recent testimony of the rate expert of the Oregon Public Service Commission to the effect that $5\frac{1}{2}$ million tons of freight are being diverted annually from the Oregon railroads to motor trucks, and the estimate of railroad men in California that the tonnage lost by California railroads to truck operators for the year 1929 would have paid the railroads over 46 million dollars.

The rapidity with which the traffic of the motor vehicle has progressed clearly caught the railroads unawares, and revealed, it seems to me, some weaknesses in their organization. For one thing, the increasing percentage of funded debt to capital since the introduction of federal control has proved, I think, to be a mistake. In 1890, three years after the passage of the Interstate Commerce Act, the rate was 48.47 per cent. In 1900 it was still only 49.18. But between 1900 and 1910, coincident alike with the

advance in the stock market from 1908 to 1907 and with the passage of the Hepburn Act of 1906, the ratio of railroad debt to capital rose to a new level at which, in general, it has remained. The percentage of debt to capital was 54.9 in 1910. It was 57.1 per cent in 1924, and in 1929, after some decline, it was still 55.9 per cent, or 12 per cent over the figure of 1900. The necessity of paying interest upon the greater part of this funded indebtedness, and the periodical refunding operations which railroads are compelled to undertake, present difficulties during a transition period, to say nothing of a period of panic and depression.

I think, also, that the new conditions brought on by the motor car and truck have made evident a certain rigidity in the operating as well as in the financial structure of our railroad organizations. Railroad positions are governed by seniority. Advance is slow, even for men of exceptional ability, in the categories in which most workers are to be found. Special training, or the training of specially selected men, has met with obstacles which have caused the abandonment of promising beginnings. The result is that a railroad career has become less attractive to ambitious young men during the past generation than it need have been, and the railroad has lost the advantage of the services of a considerable and a capable group which it might have employed. After all, the railroad is not alone in having to meet periods of transition. Many industrial firms passed through a period at the close of the World War quite as difficult as that which now confronts the rail carrier. One need only refer to the experience of the munition manufacturers and to their success in developing lacquer, rayon, and the new product of cellophane to make good the revenues lost when the demand for explosives declined. In contrast to the flexibility of industry, the railroad has been slow to use new devices. Doubtless it has been persuaded at last, and is entering the field of motor transport with energy and success, but a more alert management would have pioneered where the railroad has only followed. I do not suppose that the statement is susceptible of proof, but I associate the present plight of the railroads in part with their failure to capture their fair share of the brains of the past three or four business generations. It is likely enough that railroad managements assented more readily to seniority rules because they counted on the protection inherent in a régime of limited monopoly; but if this is the case, the motor vehicle has stripped them of their shield.

It is hard to say how far railroad difficulties are, at present, the result of fundamental change in the character of our transportation system, because one of the railroad misfortunes is that the carriers have been caught in a business depression just at the time when they have been struggling with peculiar problems of their own. So far as the railroads are concerned, the dividing point between the period of relative prosperity

which followed the return of the carriers to private hands and the present crisis seems to be located in the month of October, 1929, when the monthly operating revenues of carriers in the United States rose to the unprecedented figure of 609 million dollars. From this high point, railroad earnings and business declined with dramatic suddenness. Operating revenues fell from 609 millions in October, 1929, to 488 millions in October, 1930, a reduction of 20 per cent; while the earnings of 457 millions which the rail carriers earned in July, 1930, had fallen to 377 millions in July of the following year. At the same time the Dow-Jones index of the price of railroad stocks fell from 178.58 on October 11, 1929, to less than 50 in October, 1931, and the price of railroad bonds declined. I do not know why the railroads should have escaped the effects of the general recession in business. It deserves to be noticed, however, that while the prices of railroad securities increased less rapidly than the prices of industrial securities during the period from 1920 to 1929, they fell *pari passu* with them in the decline. According to the *New York Times* index, the average price of twenty-five railroad stocks was, in 1920, 45 per cent of the average price of a like number of industrial stocks. In September, 1929, the quotations of the railroad stocks were 84 per cent of the industrial securities, while in August, 1931, the percentage was 81.

It is an interesting question how far such fluctuations in railroad earnings as have occurred during the past decade might have been compensated by the accumulation of reserves which could have been drawn upon to pay dividends during lean years. The Interstate Commerce Commission referred to this matter in its denial of the carriers' request last October for a 15 per cent advance in rates. According to the figures cited in the decision, the corporate surplus of carriers in the United States increased from \$8,142,416,871 in 1920 to \$5,529,010,058 in 1929, or a gain of \$2,886,598,182. Such an increment was between four and five times the annual increase in receipts which the carriers expected from the emergency advance in rates. It was obvious that the particular accumulation was of no service in the crisis, because it was neither liquid nor could securities be sold against it at a time when railroad credit was impaired. The Commission suggested, therefore, that in the future some portion of railroad surplus be held in liquid form. The difficulty with such a proposal is in finding some form of investment which will be exempt from the influences affecting the railroads themselves. Unless either the railroad or the bank with which the reserves are left finds some such outlet, there can be no true liquidity. This is also the problem which confronts the proponents of corporate reserves against unemployment. Reserves can easily be kept liquid by a single company. They cease to equalize and lose their liquidity when all industry employs them, and as they increase in magnitude they tend to pass from the first condition to the second. It should

ot be said offhand, perhaps, that the railroads may not improve their credit by paying more attention to the liquidity of their reserves, but it is very probable that the policy will depend for its success upon the chance that only a portion of the business world adopts it.

The Interstate Commerce Commission thinks that the rapid decline in the prices of railroad securities was in part the railroad's own fault, being intensified by railroad attempts to make a case for an increase in railroad rates and for the extension of regulatory control to other means of transport. Most people would take the view that in its later stages, at least, the falling off in the prices of railroad securities reflected the unsympathetic attitude of the Interstate Commerce Commission, and the substantial losses of traffic to competing carriers during the past few years. Depression or no depression, the rail carriers have seen their short-haul coach business pass to the motor vehicle with alarming speed, while they are now engaged in a battle to retain their short distance freight traffic in which they are not yet sure of being successful.

What may be expected of government at a time when the character of the transportation system of a country is changing? Railroad men insist that the Interstate Commerce Commission has only to obey the simple mandate of the law, and adjust rates so that rail carriers will, under honest, efficient, and economical management and reasonable expenditures for maintenance of way, structures, and equipment, earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the property of such carrier. Of course, this has not been done. The rate of return has not, since 1920, equaled either the 5.5 per cent mentioned in the Transportation Act, nor the 5.75 per cent fixed by the Commission in 1922, on either an original cost or on a cost of reproduction valuation, and I think that the Interstate Commerce Commission decision last October in the 15 per cent advance rate case affords dramatic illustration of the fact that the Commission will not manipulate rates so as to bring about the result contemplated by the statute. It is true that the Commission alleged reasons for its refusal. It did not believe, for instance, that the proposed increase would bring the expected revenue. It thought that the standard embodied in the statute referred to normal times, and did not require the Commission to readjust rates to meet business fluctuations. And it reasoned that rates must still be reasonable under the Act as well as remunerative to the carriers, and that where these standards clashed, the rule of reasonableness was to prevail over that of remuneration. Yet these explanations are not convincing. And the last mentioned in particular deserves a word of special comment. It is said that rates must be reasonable as well as remunerative. There is, however, no test of the reasonableness of an individual railroad rate, except that of comparison, or of correspondence

with value of the service rendered, or of attention to the profit which the rate may yield. And comparison fails when an entire schedule of rates is under consideration, while the reference to the value of the service principle contained in the Commission's decisions proposes a test of a highly uncertain character. To adjust individual rates according to the value of the service to the shipper ignores the fact that rates themselves determine, as well as are determined by, the demand for transportation. It is a practice necessarily embarrassed by the circumstance that the value of service to different persons is different and it implies that the carrier is a partner in the variable profits of business instead of a public servant serving for a relatively fixed return. These are familiar objections to the use of the idea of value of service as a measure of the reasonableness of particular rates, and it seems to me that they are pertinent objections when it is sought to use the prescription of reasonableness as a bar to the imposition of rates which do not on the whole yield to carriers more than a fair return. What can be said for the notion of value of service in railroad rate making is that where a total sum which a community is to pay for the carriage of its persons and its goods has been independently determined, then this sum may be distributed among consumers according to their demand for service; and this policy may even extend to the variation of the level of rates in different periods of time, so that a predetermined volume of revenue may be principally collected at those moments when business finds it most convenient to pay. I think that such a policy is logically defensible, but I think also that it faces grave practical obstacles and that the principle behind it is far from being generally understood.

Whatever our private opinions may be with respect to the theory of rate making which the Commission defends, and which is more or less forced upon it by the courts, we shall probably all agree that when the character of the transportation system of a country is changing it is wrong to maintain a given level of income on the old investment by varying rates, because no one can know how large a proportion of the capital invested in a particular type of machine has been made superfluous by new invention. If part of the investment has been superseded, it should be allowed to go. Fortunately, most of the railroad plant of the country would remain, were this principle to be applied. The Commission said in October:

The railroads now furnish the backbone and most of the other vital bones of the transportation system of the country, and we believe this will be the situation for a long time to come. We are not impressed with the thought that they are doomed, in anything like the near future, to go the way of the stage coach and canal.

On the other hand, when a country adds a motor investment of 12 billion dollars to a rail investment of 28 billion dollars, with no corre-

onding increase in traffic, many marginal units must be written off. It is likely, under such circumstances, that a government will exert its power to maintain earnings as though no impairment of values had occurred. Fair return becomes a relative thing, subject to conclusions with respect to obsolescence, and while the present losses of rail carriers may affect their future rate of return, the railroads must rely upon their own efforts here and now if their solvency is to be preserved.

If we agree upon the preceding statement, we shall probably also agree that it would be unfortunate if government, in addition to refusing positive help to the rail carriers in a period of transition, took or permitted any action which should favor either of the contending parties. Rail carriers, of course, complain that government does just this in two respects: (1) in that railroads are regulated, and other forms of carriage are less regulated; (2) in that the public subsidizes other forms of transport and does not subsidize the railroad.

These are highly contentious propositions, and it is difficult to speak sensibly about them. With respect to the first, I take it that the criticism of the rail carriers does not relate to the motor bus, for most busses are common carriers subject to stringent state control, or they are vehicles of special types such as sightseeing busses, or put to special uses, as busses for the schools. We began bus service in California without regulation, but this was a period to which no man in his senses would desire to return. Nor does it relate to the common carrier by truck. It is true that interstate regulation is still to be added to the control exercised by the several states, but I doubt if the lack of it seriously affects the carriers by rail. On the other hand, I see, at present, no way to control the rates or to limit the competition offered by the contract truck carrier or by the industrial carrier, and I am confirmed in this view by the fact that the excellent report of the English Royal Commission on Transport comes to the same conclusion. The only practical method of equalizing the conditions of competition between rail and motor carriers of these types appears to be to loosen the control applied to rail carriers. This may be done (a) by permitting the quoting of rates on less than statutory notice; (b) by liberality in granting exemptions from Section 4; and (c) by the free issue of certificates of convenience and necessity to rail carriers who desire to carry freight over the public roads. These measures would probably not bring back all lost traffic to the railroads, but we are not interested in bringing this traffic back, but only in equalizing conditions of competition between different kinds of transport. Nor should it be forgotten that, when it comes to competition, the railroad has advantages of its own, including the ability to throw the burden of its fixed charges upon noncompetitive freight. It seems to be conceded, for instance, that the rates for the shorter hauls which the Interstate Com-

merce Commission has been prescribing in its mileage rate decisions in the past six years have not been high enough to cover full terminal expenses together with a proper allowance for the line haul. This means that the rail rates which compete with the motor truck are lower than they could be if the railroad could not call upon the noncompetitive traffic to help foot the bill. It may be that the railroad will be able to obtain an adequate share of the freight traffic by virtue of these and other practices if regulation is somewhat liberalized, even though, in general, it is subject to relatively strict control.

Let us now turn to the question of subsidies. A carefully prepared address by an official of the Southern Pacific Company pointed out, some months ago, that the state of California had \$61,172,000 of high interest bonds outstanding, on which interest and redemption charges were borne by the general taxpayer. Speaking again of the far west, the city of San Francisco operates a local railroad giving access to its waterfront wharves for shippers who are willing to pay its charges. But the city also maintains a broad street along the waterfront known as the Embarcadero, on which trucks may use free. For air transport, the federal government lights air routes and establishes radio beacons. It did, once, make grants to railroads, but as to these grants two things may be said. One is, that the government obtained a *quid pro quo* for the railroad land grants; the other is that past railroad favors are impertinent to present railroad problems. What we seek is a condition of competition in which, today, the more efficient mode of transport shall prevail over the more expensive. Gifts to railroad companies in the past inured to the benefit of the owners of railroad property at the time the gifts were made. They do not enter into the balance in deciding present policies, because present owners own their property at present costs, and all questions of alternative allocation are decided as though no gifts ever had been made.

To sum up the carriers' complaints with respect to subsidies: they show conclusively that government favors the competitors of the railroads in various ways, but it is not yet clear whether the rail carriers' principal complaint, that of unequal taxation, can be maintained. On this point the carriers' position is that the railroads, in addition to maintaining their roadbed and structures, pay in some manner, proportionate to the value of the land and these structures; while no taxes are paid on the roadways and other way structures used by the motor vehicle. The railroads maintain that the so-called gasoline tax is not a tax, but a convenient method of obtaining a rental or charge for the use of public property. Motor vehicle owners reply that motor vehicles are paying enough to maintain the roads, and that in addition, if all their various contributions are taken into account, they pay a reasonable sum for the support of government.

In the present stage of our information, we probably cannot say how much the motor vehicles in the United States are paying. It may be possible, nevertheless, to outline a method, and for the purpose of illustration we may use convenient figures, without entirely conceding or assuming the correctness of the statistics which we employ. If we have a method, correct figures and results will come in time. Suppose, therefore, that we take \$761,000,000 as the annual cost of the road system of the United States for 1929 in which motor vehicles are interested. This is a figure supplied by the National Association of Motor Bus Operators, which includes one-third of the expenditures for local roads and all of the costs of interest, amortization, and maintenance of state roads for 1929. The registration and gasoline taxes for the year 1929 were \$779,000,000, or an excess of \$18,000,000. To this excess let us add \$150,000,000 of personal property and municipal taxes, making \$168,000,000 which motor vehicles contributed in 1929 for general governmental purposes. From what sum of property values was this sum derived? According to the reports of the National Automobile Association, the total value of the production of cars and trucks from 1928 to 1929 was \$20,000,000,000. If assessed at 60 per cent, this value would become \$12,000,000,000. If, further, we depreciate our capital sum on the assumption of an average life of seven years and an average age of three years for a motor vehicle, we have a total of, perhaps, \$7,000,000,000. As against this, the taxes of \$168,000,000 amount to approximately \$24 in the thousand. This rough calculation does not make it evident that motor vehicles are paying too little at the present time, and while the heavier trucks and busses may be causing uncompensated damage to the public roads, we have testimony of the chief of the United States Bureau of Public Roads that this is not, generally, the case. Mr. MacDonald's remarks may be summarized by saying that any surfaced road which he would recommend building will support a wheel load of 9,000 pounds; that only very heavy trucks exceed this, and that even such trucks could be brought within the limit of tolerance by forcing them to multiply their wheels.

A wise government, in a time of transition, will see (1) that the losses due to transition are minimized; (2) that the government itself interposes no obstacle to the choice of the most effective machinery, or to the partial or entire elimination of the unfit; and (3) that competition between different agencies of transport takes place upon the plane of service to the public. It seems to me that the transportation problems which face the country at the present time can be attacked in the light of these primary obligations. Such standards are even more important for the moment than rules for valuation, which plagued the courts during the period of rising prices. Fifty years from now the student will regard

the first half of the twentieth century as a time of absorbing interest, in which technical improvements of the first magnitude opened new possibilities for service to industry and transport, while at the same time they compelled certain readjustments. If we can really follow a line of conduct which we are all likely to approve in principle without controversy, it may be that the losses during this transition period will appear to have been less than those suffered in earlier, similar periods when business and industry were expanding less rapidly but when different classes of transportation agencies were less inclined to co-operate among themselves.

DISCUSSION

MARVIN L. FAIR.—In respect to the present serious plight of our railroads, Mr. Eastman has pointed out that competition and depressions are new to these carriers and that this one differs only in its extent. However, I submit that never before have the railroads faced a set of competitive conditions analogous to those which they now face. Though the situation is reminiscent of the early period of railroad development which was characterized by water and highway competition, still we must remember that at that time the railroads represented the threat to existing transportation and because of their decided superiority over alternate facilities there was no public loss in their complete substitution for existing agencies. The present nation, in contrast, finds the steam railroads the basic and still the essentially superior national agency of transportation, facing, however, a group of new competitors, which under present inequality in competitive conditions, may deprive them of their rightful place.

There is even greater contrast between the present competitive situation and that which prevailed during the long period of complete railroad dominance. It was then a case of competition between units of like kinds—a competition that was limited or incomplete with much security in the monopoly noncompetitive points. Furthermore, the competitors were all common carriers using a highway that was constructed and maintained at their own cost. Today the railroads face a very complete competition from a variety of competitors many of whom are unregulated contract carriers, which use publicly maintained highways and waterways.

The extent and nature of present-day competition, actual and potential, has been discussed by Professor Daggett. He has minimized the competition offered by the waterways. But I am sure that Professor Daggett will admit the importance to some of our southern railroads. I am more impressed than with the traffic possibilities of the newly constructed and definitely projected 11,000 miles of interstate large-bore pipe lines for the transportation of gas and gasoline.

Professor Daggett has indicated that the most dangerous of the railway competitors is the highway motor vehicle which has already taken away a large part of the railroads' passenger traffic and much of its most valuable freight traffic. Its practicability as a carrier in both passenger and short-haul, less-than-carload traffic was freely predicted some years ago, but within the last five years it has made great inroads in not only lightweight carload freight but also in heavy unclassified freight, such as coal and building materials. Commissioner Eastman has well demonstrated the extent to which these inroads have affected earnings.

Now in reality we have two railroad problems facing us.

The first problem involves the consideration of those managerial and governmental policies which will help tide the railroads over the existing depression and which will eliminate those financial practices which made the railroads ill prepared for this depression.

The second problem involves the consideration of a program which will

cause each form of transportation to prevail in its rightful economic place in an efficiently co-ordinated transportation system. The proper solution of this problem is far more essential than the solution of the first. The railroads are rightly concerned over the doubtful opportunity of selling their services as to preserve their rightful place in this co-ordinated system. In the solution of this problem the policies of both railroad management and regulatory bodies must take a new direction.

I heartily agree with Commissioner Eastman that the matter of regulatory policy is secondary to the matter of improved railroad operation. Of the various competitive wastes to which Commissioner Eastman referred, the duplication of facilities and the wasteful terminal operations constitute the major obstacle to successful competition with the motor carrier. The great advantage which the railroads have in the economy and speed of line-haul movements is often nullified by delays and high costs in terminal operations. This fact largely accounts for the ability of the motor trucks to give a faster service at lower costs between many cities which are within 250 miles of each other. This vulnerable aspect of railroad operation has been described in a considerable number of terminal investigations made since the World War. Even more eloquent evidence is to be found in the very recent success of the motor vehicle in intercity transportation. In this success, the convenience of direct service from shipper to consignee augments the advantages of speed and economy of the motor vehicle, all of which modern commercial practice demands in package freight service. There is no alternative left for the railroads; they must furnish the same complete and expedited service if they are to remain a major factor in carrying this growing small-shipment traffic. The recent inroads of motor vehicles in the movement of coal and building materials indicate that the railroads may be compelled to give a mine-to-consumer's door service, which would eliminate the local coal dealer's services.

The facilities, methods of operation, and rate structure of the American railroads were evolved to meet the growing traffic in long-haul movement of large shipments to and from factories and merchants who formerly ordered their goods on a seasonal basis. Therefore, railroad transportation meant great cars which moved in large tonnage trains with little concern for expedited handling within terminal areas. It meant also a rate structure based on the value of service with the consequent highly graduated distance scales for rates and one that was characterized by relatively high rates on high grade freight. To change such conditions to meet present commercial needs will require a major adjustment of railroad rates.

To meet this challenge the railroads must first adopt new facilities and methods in handling package freight; second, adopt a new basis of classifications and rates; and finally, co-operate in both the standardization of the new equipment and in terminal operations.

The exact type of equipment and methods of using it will vary with the type of traffic and conditions existing in various terminals and sections of the country. Commissioner Eastman has emphasized that within our larger terminal areas, where most of this package freight is handled, efficient operation of this co-ordinated service will necessitate abandonment of old down-

town tracks and freight houses with a motorized service from outlying freight stations and the use of standard containers. This would in many cases be improvident if such terminal facilities were not operated as a unit or jointly by several or all rail carriers entering a given terminal district. Just where this co-operation or unit operation should begin and where it should end will also vary with conditions existing in the respective terminals. In some of the largest cities it should include all terminal operations. Truly, the railroads face a severe penalty if they do not sacrifice competitive advantages in order to establish jointly controlled facilities.

Just why has railroad management so largely failed to adapt its operations and rate structure to the demands of modern commerce and to forestall competition of motor vehicles? It has been pointed out by Vice-President Turney of the St. Louis Southwestern that first the express companies, then the parcels post, and finally the freight forwarders and independent motor carriers were allowed by the rail carriers to obtain a foothold rather than adapt their operations to the new traffic in package freight.¹ Has the seniority rule militated against capable leadership as Professor Daggett infers? I am inclined to believe that vice-presidents and general managers of traffic and transportation departments are for the most part capable men who are expert in the technique of railroading in the old sense. The commendable progress during recent years in the details of car service is sufficient proof of that. Possibly the explanation of their unfruitful efforts lies, first, in the unwillingness of management as a whole to abandon old facilities which constitute heavy investments that have long represented distinct competitive advantages over rival railroads; second, in the legal barriers to practicable use of motor vehicles; and, third, in the fear of unfavorable rate regulation. All of these, I believe, have been important factors in discouraging proper initiative in a field of operation that is new to them.

There is a widespread conviction that the situation requires major changes in the character of public policy. Shall the trend be towards a greater competitive freedom for the railroads or shall it be towards a broadened scope of regulation which contemplates the equilization of competitive conditions. Some railroad spokesmen assert that it is either freedom or destruction of private ownership and operation. Professor Daggett expressed sympathy with the adherents of greater freedom. Commissioner Eastman, however, has convincingly demonstrated the illusions of security and prosperity that lay in this direction, and reminded us that effective regulation was sought in the beginning to remove the evils of competition as much as it was to curb monopoly.

The alternative is to remove unjust aids to the competitive agencies and to subject them to a degree of regulation that will remove any unfair advantages they now have. This is the course of action that the Interstate Commerce Commission advocates in its last annual report. Closely related to this is the alleged injustice of taxation policies to which Professor Daggett has referred. The data which he advances to show that the motor carriers do bear

¹ J. R. Turney, "The Motor Truck—A Threat and an Opportunity," *Railway Age*, vol. 91, pp. 701-704.

their proper share is not convincing. In any event, our concern is not in regard to the tax burden of all motor vehicles but of those vehicles which operate for hire as competitors of the railroads. There is certainly a great need for thorough study into this matter.

The question of regulation of both motor busses and motor trucks has been undertaken by several states and has been considered by the Interstate Commerce Commission. Our objective in their regulation should not be to establish the same or even an equal degree of regulation over either the motor vehicles, or over the port-to-port water carriers, but to establish comparability of regulation. The great differences in the transportation agencies and the conditions under which they operate would require differentiation in the emphasis on safety, rates, accounting, etc. Professor Daggett despairs of effective regulation of the contract carriers. Despite the unfruitful efforts of our states and England in this matter, I am still hopeful that the legal barrier involved will give way to the right of the public to regulate transportation for hire over its own highways. Only last October 26, Judge Hutcheson of a Federal District Court in Texas upheld the recent Texas law which attempts to apply regulation to these carriers not as common carriers but as private carriers.¹

Commissioner Eastman has pointed out that the policy of broadening the scope of regulation as a remedy does not preclude changes in the laws which are necessary to enable the railroads to employ more freely other transportation agencies as auxiliaries.

Our procedure in public policy should be based upon the following considerations. First, our chief concern should be the furthering of a properly co-ordinated transportation system in which neither competition nor consolidation would have significance per se.

Second, I believe that our watchword in regulation during this difficult program of adjustment should be flexibility.

Third, I further contend that the comprehensive nature of this program will require more initiative and sympathetic guidance on the part of governmental authorities than has been required at any previous time.²

Fourth, the need for facts regarding the many transportation agencies and the conflict of vested interests may be so great that there should be established an institute of transportation through which unbiased investigation will be furthered.

Finally, before further increasing the scope of the Interstate Commerce Commission's regulations, may we not question the adaptability of this body's organization and methods of procedure to a program which is primarily administrative.

While questioning the adaptability of the railroad structure to meet present-day demands, may we not question the adaptability of a quasi-judicial commission, effective and proper as it has been in attaining our early objective,

¹ *Stevenson v. Binford et al.*, U. S. Dist. Ct. No. E. 479.

² Professor W. M. Duffus, in a discussion on commercial motor transportation before this Association in December, 1929, stated that "the complexity of transportation problems [makes] imperative a greater reliance for their solution in governmental initiative and less upon accidental agreements among conflicting interests." See *Am. Ec. Rev.*, Vol. XIX, Sup. 1, pp. 246-251.

regulation? We should not abolish the Interstate Commerce Commission possibly all the purely administrative work of that body could be better handled by a superadministrative division integrating the work of all bureaus headed by an experienced administrator and leader in transportation matters under salary which would not have a statutory limit. With district representatives to maintain constant contacts with this machinery, we might expect to obtain a more familiar, flexible, and constructive approach to regulation of privately owned and operated carriers.

HOWARD C. KIDD.—One of the most significant statements made by Commissioner Eastman is his remark that new conditions in transportation call for a revision of the railroad rate structure. Railroad executives tell us that new class rates that become effective December 8 were obsolete long before new tariffs were actually published. Whether this observation is true or not there are many questions suggested by the Commissioner's allusion to it. Is mileage the correct measure of what the traffic will bear in view of the diverse forces of carrier and market competition? Is it not possible to give our departments greater latitude in making quick adjustments in rates to meet outside competition, without at the same time disrupting a rate structure or precipitating an old-fashioned rate war among the rail carriers? Does the long- and short-haul clause, devised at a time when railroads were regarded as monopolies, create unfair competition which its framers never contemplated? Could not a bold experiment be made with L.C.L. (less than carload) tariffs, making them so simple in structure that a layman could understand them, and designed on a zoning principle not unlike that used by parcel post? Would it not be wise to permit the railroads to quote bulk rates on train load instead of carload lots when it is necessary to do so, in order to meet water and pipe line competition?

Whether these questions are answered, it is necessary to recognize that the railroad needs to be put in the best bargaining position possible, if they are to defend their own under the conditions they are compelled to face. Even if the railroads were operating under an ideal rate structure, the railroads could not be expected to ignore the policies of intelligent co-operation which Commissioner Eastman has outlined. Commissioner Eastman states that with regard to subsidies, more facts are necessary before drawing conclusions. In certain fields subsidies may be true, but with reference to water transportation at least we already have studies of recognized merit. I refer to the researches of Dr. Parmelee of the Bureau of Railway Economics, and Dr. Moulton of the Brookings Institution. In fact, one needs to go no further than the reports of the government barge line to see the generous public aid to one segment of water transportation.

Regarding motor vehicle regulation and subsidies, the Commission has been accumulating data for some time. Within the past few years, there have been extensive hearings on this subject; and in the 15 per cent case, the Commission said: "The facts in regard to motor competition we helped to develop many years ago. . . . We hope in the near future to supplement these facts and bring them up to date, together with specific recommendations for legislation." After reading this statement, the public was led to believe that the ground

was cleared for proposals that would at least express the mind of the Commission on a most controversial problem, and therefore the reference to the need for an additional congressional investigation is both surprising and disappointing.

If a congressional investigation is necessary, let us have it by all means as quickly as possible so that each form of transportation will know what and how it stands. But the very fact that the Commission which is closest to the transportation picture is in need of more information on a subject which has been in the foreground of discussion for a decade, suggests what must be the bewilderment of the public, including transportation economists, who view the scene at a greater distance. We are working pretty much in the dark; and in order to turn on the light and keep it turned on we need a permanent scientific body, independently financed, divorced from politics or carrier control, to study and give us the facts on transportation questions at issue. I am glad to report that Professor L. C. Sorrell of the University of Chicago, sponsored by the Associated Traffic Clubs of America, is now working on the project of forming a transportation institute which will meet our imperative need for continuous scholarly research.

Professor Daggett thinks that intercoastal commerce that passes through the Panama Canal is relatively unimportant. But I suggest that if ton miles could be used as a basis of comparison, the results would be more impressive. Moreover, it is the influence of the Canal route upon market competition and the rate structure of the western lines that is equally as important as freight statistics in measuring the economic influence of coast-to-coast trade. President Shoup estimates that the transcontinental railroads lost \$49,000,000 in revenue in 1929 as a result of the Canal route, and the Interstate Commerce Commission in the 15 per cent case goes so far as to say that "waterway competition is now a controlling factor on transcontinental traffic, not only between the coasts but also reaching far inland."

Reference has been made by Commissioner Eastman to the proposed regulation of water transportation. But the legislation that was recently introduced in Congress provides that jurisdiction be given to the Shipping Board rather than to the Interstate Commerce Commission. While there is nothing to be said against the Shipping Board as a responsible agent of Congress, the logical regulatory body is the Interstate Commerce Commission. The Commission already controls the rates of a large volume of water shipments that move under common arrangements with the railroads; the problems of rail and water commerce are interrelated; and the Commission is intrusted by the Transportation Act with the duty of preserving in full vigor both rail and water transportation. While much has been said about co-ordination of transportation, more needs to be said regarding the co-ordination of regulation.

SITUATION PERSUASION.—Many details in the principal papers deserve comment and elaboration, but I shall limit myself to a few remarks on the central theme of competition in transportation and its control.

Competition is an outstanding and persistent fact, despite the preference of many persons to speak of the relation of agencies as essentially supplementary, and the inclination of others to condemn all departures from the pri-

e of natural monopoly. It is useful to be reminded, as Commissioner Eastman has done, that competition has always characterized the railroads, and it underlay the necessity of regulation. Because uncontrolled competition was ruinous to railroads, it does not follow that other agencies respond similarly; some are quite different. But it does follow that in a competition of agencies which include the railroads, governmental supervision of that competition is required.

There is a growing public interference in these newer relations of transport agencies, and I believe the consequences will be substantial. A member of the Interstate Commerce Commission declared recently that "ruthless economic laws" will determine which agency shall prevail "no matter what artificial impediments may be interposed to interfere with natural progress." This is a questionable half-truth. With public subsidies possessing far-reaching possibilities, and with certain states restricting the operation of contract as well as common carriers on the highway, and increasing special taxes until a truck or bus may pay \$1,000 annually, the scope of government influence is considerable. Certainly emphasis should chiefly be placed on the high responsibility assumed by those who manipulate these instruments of control.

Danger exists that the business depression will affect permanent policy badly. The wastes of competition are magnified when transport capacity is seriously excessive; but improved business should largely remove the slack. It is easy now to forget that the presence of alternative agencies, of unlike character, means a richer, more varied service than one agency can provide. Moreover, while at one stage of transport development competition may produce wasteful utilization of existing equipment and methods, our experience, even with railroads, suggests that competition may offer a stimulus to new levels of performance that regulation is not likely to supply. No comparison intended of gains and losses which are essentially incommensurable; but the remark seems pertinent that the present plight of the railroads should not be allowed to obscure the contribution of rival agencies.

But competition, to be economic, must be equitable. Motor transportation possesses strategic advantages which do not spring from real superiority, but which, it seems, must largely escape control. Against these may be set the inherent advantage of the railroad of being able to subsidize competitive by means of noncompetitive services. But competitive advantage conferred through public subsidy need not be continued. Professor Daggett does well to stress how seriously the railroads, and some economists, are in error in assuming that motor carriers use highways free of cost. I suspect that certain elements of subsidy remain to be eliminated; but whether a congressional investigation will greatly clarify a matter where facts are less elusive than manner of interpreting them, is open to legitimate doubt, though the publicity should be useful. The waterway interests invoke an imposing array of considerable benefits to buttress their claim to subsidy, and characterize all opposing argument as railroad propaganda; but it deserves to be stated again that, as a matter of elementary economics, the railroads are right, and that, fundamentally, their indirect social contributions are by no means inferior. Competition, however, even when entirely fair, is a luxury that cannot

always be afforded. Situations undoubtedly exist, apart from the present depression, where traffic will support only one carrier, and competition of rivals cannot be depended on to preserve the better public servant. The railroad may be indispensable in performing some functions and inferior in others; but since a railroad is a peculiar unitary sort of thing that cannot readily scale down its facilities and live within the revenue of its indispensable services, public interest may require exclusion of the rival carrier. In regulating motor carriers, some states appear to have applied this principle, and more may do so; but the operation of rival agencies seems at times to be restricted for less compelling reasons.

Quite apart from the present emergency, it is desirable that artificial competitive advantage be removed. But it seems that any further restriction of competitors specifically undertaken to protect the railroads should not be imposed until the possibilities of strengthening the railroads have been fully exploited, through their own efforts and, where necessary, through regulation. Among the means suggested, it seems that the civil strife of rail carriers may well be abated, and new arrangements inaugurated, in the conduct of passenger and L.C.L. services subject to outside competition. British experience supports the view that store-door delivery is capable of striking with great directness at a leading advantage of truck transport; but our railroads, as the California Commission said of a large carrier in a recent case, have been "incredibly dilatory." It appears, too, that steps should be taken to reduce the railroads more completely of the cost of continuing services whose traffic is largely gone and which inevitably incur losses. But whatever the possibilities of such methods, it does not seem desirable to restrict rival agencies unless the railroads have achieved their utmost.

D. PHILIP LOCKLIN.—Commissioner Eastman and Professor Daggett have both made it clear that, aside from the problems caused by the depression, the transportation problem today is largely the problem of the relation between different forms and agencies of transportation. In so far as changes in legislation and in regulatory policy are concerned, four distinct methods of meeting the situation have been suggested in recent years.

First, we may follow the policy of protecting the railroads from the competition of the newer agencies of transportation. The refusal to grant certificates of convenience and necessity to motor carriers when they would compete with railroads is the most common manifestation of this policy. There are two difficulties with this policy however. In the first place, it can be only partially successful in protecting the railroad, because the private automobile and private truck, and perhaps the contract carrier, cannot be regulated in this way. After all, the railway is competing with the highway and is merely with the carriers for hire that operate over it. The second difficulty with this policy is that in so far as it is successful it denies the public the cheaper or better, or different service that the trucks and busses may give. There are circumstances in which it is justifiable and desirable to protect railroads from bus and truck competition. But power to deny certificates of convenience and necessity to bus and truck operators on account of competition with railroads is a power which should be cautiously and sparingly exercised.

second policy that might be adopted is to permit the railroads to acquire monopoly of all kinds of transportation, or of such forms as they desire to control. It has been argued that this policy would enable the transportation companies to use the most economical form of transportation in a given situation. There are some regulatory practices now followed which may lead naturally to such a monopoly. Such is the practice of giving railroad companies, or their subsidiaries, a preference in the granting of certificates to rate trucks and busses on the highways, and the practice of protecting such as from the competition of independent operators. The suggested modification of the antitrust laws to permit railroad control of competing agencies of transportation, and the repeal of the provisions of the Panama Canal Act which keep railroads from controlling competing boat lines, would represent further steps in the same direction. Two dangers lurk in the monopoly policy. It would often deprive the public of the benefit which might be derived from cheaper or more economical method of transportation, and it is questionable whether society has brought regulated monopolies under sufficient control to render completely the protection which competing agencies of transportation may at times afford.

A third method suggested for dealing with the new situation is to abandon regulation, on the theory that railways are no longer monopolies and that competition will be a sufficient regulator. I am glad that Commissioner Eastman has devoted so large a portion of his paper to the experience with unregulated competition between railroads. If unrestricted competition between railroads resulted in all sorts of unjust discrimination, and in destructive competition, there is no reason to think that unregulated competition of railroads with other agencies of transportation would have different results. And since the ruinous character of competition between railroads resulted in combinations and attempted monopoly, it is probable that a similar result would follow competition of railroads with other transportation agencies.

The fourth method of dealing with the new competitive situation is to equalize the conditions of competition between the various forms of transportation in order that each may more readily find its proper place in a co-ordinated transportation system. This policy seems to involve a number of things. It lies that one agency of transportation shall not be subsidized to the disadvantage of another. It is commonly alleged, as both Professor Daggett and Commissioner Eastman point out, that motor transportation is subsidized. For trucks, whether private trucks, contract-carrier trucks, or common-carrier trucks, should be taxed sufficiently to contribute their share of highway maintenance and capital charges. In addition, carriers for hire may properly be taxed as any business is taxed. But equalization of advantage should not mean, as it seems to mean to some persons, that the taxing power is to be used for the purpose of depriving one agency of transportation of such inherent advantages as it may possess.

Equalizing the conditions of competition may, as Professor Daggett suggests, involve the modification of certain restrictions now imposed upon railroads. It is quite probable, for instance, that a liberal construction of the undue preference and prejudice provisions of the Interstate Commerce Act

(Section 8) and of the long- and short-haul provisions of Section 4, and of the aggregate-of-intermediate provisions of the same section, would be desirable in order to enable railways more easily to adjust their rates to the new conditions confronting them. Equalizing conditions of competition also imply or should imply, that motor carriers should be required, in so far as possible, to publish their charges and to adhere to those charges, and that they should be prohibited from engaging in discriminatory practices.

There are serious legal and practical difficulties in the way of effecting regulation of motor transportation arising from the existence of the contract carrier. I take it that Professor Daggett considers these difficulties insurmountable. I do not say he is wrong, but I doubt whether sufficient effort has been directed to the task of overcoming the practical difficulties. And to those who believe that the regulation of contract carriers is not legally possible, let me suggest a consideration of the new approach to the problem presented by the Association of Railway Executives in a brief before the Interstate Commerce Commission in the recent investigation of motor transportation co-ordination, where it is argued very effectively that the contract carrier can be regulated. I am not sure but that the carriers could make out an even stronger case than they have in that brief.

**MINUTES OF THE BUSINESS MEETINGS OF THE
AMERICAN ECONOMIC ASSOCIATION, HELD IN
WASHINGTON, D.C., DECEMBER 28-30, 1981**

The first business meeting of the American Economic Association was held 9:00 A.M., December 29, 1981, in Hotel Washington, Washington, D.C., with President Bogart presiding.

The minutes of the meeting of December 31, 1980, were approved as noted in the *Proceedings of the Forty-third Annual Meeting*, pp. 268-270.

The following reports were read and approved:

- (1) The Secretary, Mr. Deibler. (See p. 279.)
- (2) The Treasurer, Mr. Deibler. (See p. 288.)
- (3) The Auditor, Mr. Deibler for Mr. Eric Kohler, of E. L. Kohler and Company. (See p. 284.)
- (4) The Managing Editor, Mr. Dewey. (See p. 289.)
- (5) The Finance Committee, Mr. Deibler for Mr. C. H. Crennan. (See p. 291.)
- (6) The Joint Census Advisory Committee, Mr. W. F. Willcox. (See p. 292.)
- (7) The Representative to The American Council of Learned Societies, Mr. W. F. Willcox. (See p. 292.)
- (8) The Report of the *Encyclopedia of the Social Sciences*, Mr. F. Fetter and Mr. E. R. A. Seligman. (See p. 294.)

Professor Joseph Willits, reporting for the Committee on Honorary Members, recommended the following European scholars for election to honorary membership in the American Economic Association:

Arthur Lyon Bowley, University of London
John Maynard Keynes, Cambridge University
Walter Layton, Editor, *The Economist*, London
Arthur Augustus Caspar Splithoff, University of Bonn, Germany

The report of the Committee was approved, and the persons nominated were elected to honorary membership in the Association.

President Bogart appointed Dean William F. Notz of Georgetown University, Professors E. E. Agger of Rutgers University, and Ward L. Bishop of Michigan State University, a Committee on Resolutions.

Adjourned.

The second business meeting of the American Economic Association was held at Hotel Washington, December 30, 1981, at 9:00 A.M., with President Bogart presiding.

The minutes of the meeting of December 29, 1981, were read and approved. Professor L. C. Marshall submitted the following report as representative of the Business Research Council:

If necessary, the current year has been primarily devoted to organizing the Council. On November 23, 1981, the following officers were elected:

Henry S. Dennison, President
C. D. Ruggles, Vice-President
W. J. Donald, Secretary-Treasurer
Kenneth Andersen, Assistant Secretary

Report on collegiate business research for 1981 has almost been completed, and is to be published in the near future.

On motion, the report was accepted and ordered to be made part of the records of the Association.

Mr. Hammond made a report of progress for the Committee on Permanent Headquarters and the Selection of a Secretary-Editor. On motion, it was voted that a committee of three be appointed to continue the consideration of this matter and to report at a subsequent meeting.

The question of determining the place of the next meeting was referred to the Executive Committee with power.

Dean Ngiz presented the following report for the Committee on Resolutions:

WHEREAS, The successful conduct of an elaborate series of meetings such as those planned annually by our own and by related associations requires an enormous amount of preliminary preparation and labor; and

WHEREAS, These labors have devolved largely upon Dean W. M. W. Splawn, of American University, and upon Dr. Thomas Rhodes, Statistician of the Federal Reserve Board; therefore, be it

Resolved, That the Secretary tender to these gentlemen, and to those who may have been associated with them, the warm appreciation and thanks of the officers and members of the American Economic Association for their helpful service; and be it further

Resolved, That, in like manner, an expression of the gratitude of the Association be conveyed to our President, to the members of the Program Committee, and to those of the Publicity Committee, for their contributions to the success of this year's program; and be it further

Resolved, That thanks be similarly extended to the management of the Hotel Washington for its friendly co-operation in arranging the necessary physical facilities for the meeting, to the local press for the generous publicity accorded to the discussion, and to the Macmillan Company for its courtesy in making so freely available copies of the *New York Herald-Tribune*.

The resolutions were adopted and the Secretary instructed to send copies in accordance with the instructions contained therein.

Professor T. S. Adams reported for the Nominating Committee the following list of nominations:

For President: G. E. Barnett, Johns Hopkins University.

For Vice-Presidents: Ralph E. Heilman, Northwestern University; B. M. Anderson, Chase National Bank.

For Secretary-Treasurer: F. S. Deibler, Northwestern University.

For Members of the Executive Committee: John Ise, University of Kansas; R. H. Tucker, Washington and Lee University.

For Members of the Editorial Board: F. A. Bradford, Lehigh University; P. T. Homan, Cornell University.

For Member of the Program Committee: R. G. Tugwell, Columbia University.

For Member Social Science Research Council: Max Handman.

There being no additional nominations, the Secretary was instructed to cast a ballot, and the nominees were declared duly elected.

Adjourned.

**REPORT OF THE SECRETARY OF THE AMERICAN
ECONOMIC ASSOCIATION FOR THE YEAR
ENDING DECEMBER 12, 1981**

In order to record all of the activities of the Association for the year just ended, I am including the minutes of all meetings of the Executive Committee held within the year.

(1) Minutes of the first meeting of the 1981 Executive Committee:

The first meeting of the Executive Committee of the American Economic Association for the year 1981 was held in the Harvard Club, New York City, March 28, 1981, 10 A.M. There were present: President Bogart, presiding, and Messrs. Day, Deibler, Hammond, Mitchell, and Willits.

Motioned: To appoint George B. Roberts, Jr., as a member of the Finance Committee.
Seconded: That the resolution in regard to the dismissal of 179 members from the faculty of four state institutions in Mississippi be laid on the table.

Motioned: That the Executive Committee of the American Economic Association express its confidence in the past history of the American Association of University Professors and its cordial endorsement of the work that has been done by this organization in behalf of college and university teachers throughout the country, and furthermore it expresses its willingness to participate in a conference on academic freedom and academic tenure by sending a representative if the Council of the American Association of University Professors deems it advisable to hold such a conference.

Motioned: In connection with the report of the special committee on permanent headquarters that the President be authorized to appoint two committees, one on ways and means, and one on personnel. The membership of these two committees is as follows:

**WAYS AND MEANS COMMITTEE:
(not yet appointed)**

COMMITTEE ON PERSONNEL:

**PROFESSOR M. B. HAMMOND
PROFESSOR R. B. WESTERFIELD
PROFESSOR T. W. PAGE**

Motioned: That the President be authorized to appoint a committee to develop an appropriate program for a special meeting of the Association to be held in connection with the Chicago World's Fair in 1983. The members of this committee are:

**DR. H. G. MOULTON
PROFESSOR H. A. MILLIS
PROFESSOR F. S. DEIBLER
PROFESSOR C. M. THOMPSON
PROFESSOR EDWIN F. GAY**

Motioned: To appoint Professor Jacob Viner of the University of Chicago as a member of the Executive Committee, to fill the unexpired term of Professor E. L. Bogart.

Motioned: To ratify the choice of Washington as the place of holding the next annual meeting of the Association, which will be held Monday, December 28, to Wednesday, December 30, 1981.

Motioned: That the President and Secretary be authorized to appoint a committee on arrangements.

Motioned: To publish the *Handbook* in reduced form, leaving out the geographical distribution of the membership.

Adjourned.

2) Minutes of the second meeting of the 1981 Executive Committee:

The second meeting of the Executive Committee of the American Economic Association for the year 1981 was held in Hotel Washington, Washington, D.C., December 28, 1981, at 5 P.M. There were present: President Bogart, presiding, Messrs. Dagobert, Deibler, Dewey, Ely, Gay, Jones, Mitchell, and Willits.

The Committee on the World's Fair meeting in 1983 reported a resolution submitted from the Social Science Research Council, which reads as follows:

Resolved, That the American Economic Association approve the plan proposed by the Social Science Research Council for holding a World Congress of social sciences at the Century of Progress in Chicago in June, 1933, and that in the event the plan matures, this association hold a special meeting as a part of the proposed World Congress.

Voted: To approve this resolution and continue the Committee.

Mr. R. A. Flanders, representing the Society of Mechanical Engineers, presented a request to the effect that since the questions that are now coming before his association are more and more economic in nature, the mechanical engineers would like advice and counsel of economists, and raised the question of some plan of co-operation between the mechanical engineers and the economists.

Voted: To authorize the President to inform Mr. Flanders that the American Economic Association would be glad to confer with the Society of Mechanical Engineers on the possibility of a joint program and to give such advice as would be consistent with the general policy of our Association.

Since there has come to the attention of the Association the fact that the *Handbook* has been used for circularizing the membership for expressions of opinion on controversial issues, and since in some instances the inquiry seemed to imply the sanction of the inquiry by the American Economic Association, the following action was taken:

Voted: To instruct the Secretary, when his attention has been called to the use of the *Handbook* for questionnaire purposes, to communicate with the person or persons conducting the investigation, and to suggest to them that they should exercise care in avoiding the impression that the American Economic Association had given sanction to, or was in any way connected with, the investigation.

A committee, consisting of President Bogart, Messrs. Handman, Mills, and Deimler, representing the American Economic Association, and Dr. Meredith B. Givens, representing the Social Science Research Council, presented a resolution pertaining to the creation of a Committee on Research. (See p. 295 for a report of this Committee.)

Voted: That the Association establish a Committee on Research, for the purpose of making, in co-operation with the Social Science Research Council, further investigations and report at the next meeting as to the ways and means by which the Association can best promote research in the field of economics.

Voted: To appropriate from the funds of the Association a sum not to exceed \$250 to defray the expenses of this Committee.

Voted: To authorize the President to appoint a representative on the Joint Council Advisory Committee.

Voted: To reappoint the following persons to constitute the Finance Committee for the year 1933:

C. H. CRENNAN, *Chairman*
F. S. DEIMLER
GEORGE B. ROBERTS, JR.

Voted: To reappoint Mr. John E. Walker as Counsel for the Association for the year 1933.

Voted: To appoint Mr. David Friday as representative to the National Bureau of Economic Research for the year 1933.

Voted: That it is the sense of the Executive Committee that for the present not more than six round table sessions be provided at any annual meeting, and that the program of these sessions must be approved by the President for the material to appear in the annual proceedings of the Association.

Voted: That a small committee be appointed to act jointly with appointees of the American Statistical Association and the American Association of University Professors in Accounting for the purpose of urging the Treasury Department to publish data on incomes.

Adjourned

During the year the office of the Secretary has carried on the ordinary activities of the Association.

The *Proceedings* of the annual meeting of 1930 were edited and published as a supplement to the March, 1931, issue of the *Review*. The *Handbook* containing the names and addresses of the membership was published as a supplement to the June issue of the *Review*.

the year, President Bogart made the following appointments:

Auditors:

E. L. KOHLER AND COMPANY

Nominating Committee:

T. S. ADAMS, Chairman

A. BERGLUND

H. G. BROWN

H. E. HOAGLAND

A. P. USHER

C. W. WRIGHT

ee on Local Arrangements: W. M. W. Splawn, Chairman.

quest, the following persons were appointed to represent the As-
n special occasions:

iration of the President of the University of North Carolina: Calvin B.

atives to the American Academy of Political and Social Science: Profes-
Barrett and Professor Susan M. Kingsbury.

dance with a resolution of the Executive Committee (Vol. XX, Sup.
the President and Secretary have approved the use of the addresso-
of the Association by: Princeton University Press, to announce
ham's *Exchange Prices and Production in Hyper-Inflation*, and
ital *Control of Crude Rubber*; New York State College of Agri-
announce the publication of the proceedings of the first and second
ial Conferences of Agricultural Economists; Legal Research Com-
he Commonwealth Fund, to announce a volume by Professor I. L.

University of Pennsylvania, to announce several of their publica-
the Academy of Political Science, to announce the publication of
7 *Plan in Operation*.

ociation has continued its co-operation with the Pollak Foundation
delphi Company, and circulars announcing reduced rates on the
is of these two concerns have been sent to the membership of the
1. This arrangement has been especially beneficial during the cur-
as reports received to date indicate that a very large number of
ave availed themselves of the special rates on the publications.

owing table shows the present status of the membership and the
at have occurred during the year ending December 12, 1931, the
sing the books of the Association:

ers and subscribers in December, 1930.....		3,853
abers in December, 1930.....	2,704	
s removed:		
igned	94	
k of address.....	83	
1-payment of dues.....	151	
d	18	296
	2,408	
s added.....	218	
1 members in December, 1931.....	2,626	

Life members in December, 1930.....	76	
Added	1	
	77	
Removed	13	
	64	
Total life members in December, 1931.....		64
Honorary members in December, 1930.....	17	
Removed	2	
	15	
Total honorary members in December, 1931.....		15
Total members in December, 1931.....		2,705
Subscribers in December, 1930.....	1,056	
Removed	179	
	877	
Added	199	
	1,076	
Total subscribers in December, 1931.....		1,076
Total members and subscribers, December, 1931.....		
Net loss.....		

There was a net loss for the year of 72. This is the first year since 1914 that there has been a decline in membership.

The decline is accounted for by the fact that we have had fewer new members and subscribers during the year than during 1930. In 1930 we received 849 new members and 222 new subscribers, or a total of 571. During the current year we have received 218 new members and 199 new subscribers, or a total of 417. The depression has clearly prevented many persons from becoming members at this time. The decline would have been larger, except for the co-operation which the Secretary has received from members nominating persons for membership. The Secretary takes this opportunity to express his appreciation of this co-operation, and hopes that more members will come to the aid of the Association during the coming year by sending nominations for membership to this office.

We regretfully report that during the year the deaths of the following members have occurred, and that we have had to remove their names from active membership list:

IRVING ALLEN
EDWARD WHESTER BEMIS
L. BRENTANO (Honorary Member)
L. BUCHER (Honorary Member)
HORACE F. CLARK
W. L. CLAUDE
WHITNEY COOMES
GUY W. CURRIER
GEORGE W. ELLIS
RALPH ELLIS
CHARLES A. FARANO

CHARLES THEODORE GENT
JOHN J. MACFARLANE
C. H. MARKHAM
BESSIE IRVING MILLER
WALTER S. MITCHELL
DWIGHT W. MORROW (Life Member)
JOHN P. MUNN
JAMES F. WALSH
MURRAY SHIPLEY WILDMAN
WILLIAM COPLEY WINCHELOW (Life Member)

Respectfully submitted,

F. S. DEIBLER, *Secretary*

**REPORT OF THE TREASURER OF THE AMERICAN
ECONOMIC ASSOCIATION FOR THE YEAR
ENDING DECEMBER 12, 1981**

members are referred to the report of the Auditor for a statement of financial condition of the Association at the date of the audit. The current and current liabilities are shown in Exhibit I. The income and expenses for the year appear in Exhibit II. The total assets of the Association amount to \$46,126.21. This figure carries the investments at cost, is \$6,827.04 above their present market value. It does not include the cost of unsold copies of the past publications of the Association, which have been charged as an expenditure against past income.

Total receipts, including dues, interest, advertising, and other publication income, and miscellaneous items, amounted to \$22,877.11, or \$582.96 in excess of the receipts for the year 1980. The income from dues was lower by \$20, whereas the publication income was \$782.24 in excess of similar receipts of last year.

Loss on securities sold during the year has been charged against current income, so that the net income of \$1,614.62 is a net addition to surplus.

Administrative and operating expenses were slightly less (\$68.42) than last year. The publication costs were \$1,598.97 greater than a year ago. The difference is due mainly to the following three items: \$886.16 increase in printing the *Review*, \$565.27 in printing the *Proceedings*, and \$589.54 in publication of the *Handbook*, which did not appear last year. These three items account for \$1,490.92 of the increase noted. The *Proceedings* for the current year contained 808 pages as against 218 pages the previous year. There were 4400 copies per issue of the *Review* published, or 100 more than in 1980. The volume also contains 27 more pages than the previous volume. Investments of the Association are given most careful scrutiny, and since their present market value is below their cost, they are, in the opinion of the Finance Committee, invested in securities of high grade concerns. Unless there should be unforeseen declines in receipts, the Association can continue to carry on its present activities and keep within its present income.

Respectfully submitted,

F. S. DEIBLER, *Treasurer*

REPORT OF THE AUDITOR

December 19, 1981

Executive Committee,
American Economic Association, Inc.,
Evanston, Illinois.

DEAR SIRs:

As a result of our audit of the books and records of the American Economic Association, Inc., for the year from December 15, 1980, to December 1981, we present the following exhibits together with our report thereon:

Exhibit

Number

Balance sheet—December 12, 1981.....	I
Statement of income and expense—Year ending December 12, 1981	II

Results from Operations

The net income of \$1,614.62 for the year ending December 12, 1981, was \$1,274.44 less than for the preceding year, as shown by the following comparison of the operating results for the two periods:

Particulars	Year ending		Increase or decrease
	December 15, 1980	December 12, 1981	
Income from—			
Dues	\$ 18,788.80	\$ 18,585.60	\$ 203.20
Interest on investments and bank balances.....	2,095.76	2,211.49	115.73
Profit and loss on securities redeemed or sold	57.50	521.85	464.35
Economic Essays	20.88	12.56	8.32
Other sources	8.92	2.88	6.04
Total income	\$ 15,911.81	\$ 15,440.18	\$ 471.63
Expenses and costs—			
Administrative and other operating expenses..	\$ 5,651.09	\$ 5,587.67	\$ 63.42
Publication costs.....	18,254.00	14,852.97	3,401.03
Publication income.....	5,882.84	6,615.08	732.24
Total expenses and costs.....	\$ 18,022.25	\$ 18,825.56	\$ 803.31
Net income.....	\$ 2,889.06	\$ 1,614.62	\$ 1,274.44

The membership roll was decreased by 72 members during the year.

A loss of \$821.85 on securities resulted from the following sales:

Security	Cost	Selling price	Profit or loss
Armour and Company first and refunding 5½% bonds of 1948.....	\$ 1,870.00	\$ 1,889.50	\$ 19.50
Commonwealth Edison Co. first mortgage 5% bonds of 1948	2,050.00	2,206.65	156.65
Totals	\$ 3,920.00	\$ 3,598.15	\$ 321.85

In the following summary the publication income and expenses for 1981 are compared with 1980 and with the budget for 1981 submitted by the managing editor:

Particulars	Year		Budget
	1980	1981	For 1981
Income—			
Subscriptions other than from members.....	\$ 4,917.42	\$ 5,182.45	
Sales of copies.....	588.10	749.06	
Advertising	877.82	788.57	
Total income.....	\$ 5,882.84	\$ 6,615.08	
Expenses—			
Printing	\$ 5,812.09	\$ 5,648.20	\$ 5,800.00
Editor's honorarium.....	2,500.00	2,500.00	2,500.00
Contributions	1,447.75	1,458.25	1,500.00
<i>Proceedings</i>	1,858.91	1,919.18	—
<i>Handbook</i>	—	589.54	—
Other costs.....	2,640.25	2,742.80	2,700.00
Total expenses.....	\$ 18,254.00	\$ 14,852.97	\$ 12,000.00
Net expenses.....	\$ 7,871.16	\$ 8,287.89	

The budget of the managing editor was based on a printing of 4,800 copies; 4,400 copies of each issue were printed, the total pages being 886.

The *Proceedings* and *Handbook*, issued by the Secretary, cost \$2,508.72.

Particulars	Pages	Copies	Cost
<i>Proceedings</i>	808	4,800	\$1,919.18
<i>Handbook</i>	88	4,200	589.54
Total			\$2,508.72

Forty-two hundred copies were issued of the 1980 *Proceedings* which contained 218 pages.

Balance Sheet—December 12, 1981

Cash in checking and saving accounts was reconciled to a certificate received from the State Bank and Trust Company, Evanston, Illinois.

The securities are in the custody of the State Bank and Trust Company, who furnished us with a certified list of the securities held. The finance committee is preparing a report on the securities owned.

During the year, \$212.41 was spent from the membership extension fund for printing, postage, and salaries.

Life memberships were reduced by \$675.00 for the following reasons:

Particulars	Amount
Deaths (8).....	\$ 225.00
Lack of address (6).....	200.00
Removals authorized by Mr. F. S. Deibler as result of registered mailing of December, 1980, <i>Review</i> (4)	250.00
Total	\$ 675.00

Changes in Financial Condition

The changes in the financial condition of the Association during the year are reflected in the following comparison of the balance sheets at December 15, 1980, and December 12, 1981:

<i>Assets</i>	December 15, 1980	December 12, 1981	Increase or decrease
Cash and cash funds.....	\$ 9,008.48	\$ 8,863.61	\$ 5,144.87
Investments, at cost.....	83,489.48	89,184.48	6,695.00
Receivables (net).....	756.60	1,018.35	261.75
Inventories, at cost.....	1,577.18	1,611.72	34.54
Furniture, fixtures, etc., at cost.....	1,127.91	1,189.99	62.08
Reserve for depreciation	546.61	636.84	90.23
Total assets.....	\$ 44,862.99	\$ 46,126.31	\$ 1,263.32
<i>Liabilities and net worth</i>			
Accounts payable.....	\$ 10.00	\$ 188.95	\$ 178.95
Unearned income.....	2,240.48	2,272.49	32.01
Membership extension fund.....	4,880.14	4,667.78	212.36
Life memberships.....	6,025.00	5,550.00	475.00
Surplus—			
Balance—December 15, 1980.....	81,207.42	81,207.42	—
Net income for the year ending December 12, 1981	—	1,614.62	1,614.62
Transfer from life memberships to surplus— 1981	—	675.00	675.00
Total liabilities and net worth.....	\$ 44,862.99	\$ 46,126.31	\$ 1,263.32

On July 15, 1981, the balance in the savings account in the Central Trust Company, Cambridge, Massachusetts, was withdrawn. The decrease in cash and the net income for the year were invested in bonds.

We appreciate the courtesies extended to us during the course of the audit.

Very truly yours,

E. L. KOHLER AND COMPANY
Certified Public Accountants

EXHIBIT I
AMERICAN ECONOMIC ASSOCIATION, INCORPORATED

BALANCE SHEET, DECEMBER 12, 1931

Assets

CURRENT ASSETS AND INVESTMENTS:

Cash in State Bank and Trust Company, Evanston, Illinois.....	\$ 3,963.61
Investments, at cost.....	89,184.48

Receivables—

Review advertising.....	\$ 230.25	
Interest accrued on investments.....	557.30	
Membership dues.....	333.50	
Publication sales.....	128.20	
Total receivables.....	\$ 1,248.25	
Less—Reserve for doubtful accounts.....	235.00	1,013.25

Inventories, at cost—

Economic Essays.....	\$ 1,236.00	
Cover stock.....	264.28	
Stamped envelopes.....	111.44	1,611.72
		\$ 45,623.06

FURNITURE, FIXTURES AND BOUND

PERIODICALS, at cost.....	\$ 1,139.99	
Less—Reserve for depreciation.....	636.84	503.15
Total assets.....		
		\$ 46,126.21

Liabilities and Net Worth

CURRENT LIABILITIES:

Accounts payable.....	\$ 188.95	
Unearned income—		
Membership dues.....	\$ 411.08	
Subscriptions	1,816.41	
Advertising	45.00	2,272.49
		\$ 2,411.44

MEMBERSHIP EXTENSION FUND.....	4,667.78
--------------------------------	----------

NET WORTH:

Life memberships.....	\$ 5,550.00	
Surplus unappropriated—		
Balance—December 15, 1930.....	\$ 31,207.42	
Net income—Year ending December 12, 1931 (Exhibit II).....	1,614.62	
Transfer from life memberships.....	675.00	33,497.04
Total liabilities and net worth.....		
		\$ 46,126.21

EXHIBIT II

Particulars	Amount	
INCOME FROM DUES:		
Regular members (less \$250.00 defaulted dues unpaid at December 12, 1931)	\$13,040.60	
Subscribing and contributing members	495.00	\$13,535.
OTHER INCOME:		
Income from investments—		
Interest earned on—		
Bonds	\$ 1,886.81	
Certificates of deposit	85.85	
	<u>\$ 1,972.66</u>	
Less—		
Custodian's fee	\$ 85.85	
Loss (net) on sales of bonds	821.85	357.70
	<u>\$ 1,614.96</u>	
Interest earned on savings and checking accounts	274.68	
Royalties on <i>Economic Essays</i>	12.56	
Miscellaneous income	2.88	1,904.
	<u></u>	
Total income		\$15,440.
ADMINISTRATIVE AND OTHER OPERATING EXPENSES:		
Secretary's salary	\$ 1,000.00	
Office salaries	2,951.67	
Postage	895.70	
Stationery and printing	119.28	
Office supplies	30.68	
Telephone and telegrams	63.98	
Insurance	79.10	
Depreciation	90.23	
Annual meeting	288.71	
Executive Committee expense	856.26	
American Council of Learned Societies	65.00	
Auditing	50.00	
Other expenses	102.01	\$ 5,587.67
PUBLICATION EXPENSES:		
Printing	\$ 5,648.20	
Editor's honorarium	2,500.00	
Editor's traveling expenses	60.25	
Editorial expenses and supplies	2,632.60	
Contributions	1,458.25	
<i>Proceedings</i>	1,919.18	
<i>Handbook</i>	589.54	
Sundry publication expense	49.85	
	<u>\$14,852.97</u>	
Total publication expenses		
Publication income—		
Subscriptions other than from members	\$5,132.45	
Sales of copies	749.06	
Advertising	733.57	6,615.08
	<u>8,237.89</u>	
Total expenses		\$18,835.
Net income for year (Exhibit I)		\$ 1,614.

REPORT OF THE MANAGING EDITOR OF THE AMERICAN ECONOMIC REVIEW FOR THE YEAR ENDING DECEMBER, 1981

The cost of the *Review* during 1981 was \$11,982.29 as compared with \$5.22 for 1980. There will be a small additional amount for postage, cuts and reprints for the December number, the charge for which had come from the printer when the books of the treasurer had to be closed. It should be noted that the total expenditure was very close to the budget estimated last year, \$12,000.

There was a slight increase in the number of copies printed—4,400 per year in 1981 as compared with 4,800 in 1980. The number of pages was 814 compared with 811 in 1980.

On the principal items the cost of the *Review* during 1981 was as follows:¹

Printing (paper, reprints, postage, etc.)	\$5,899.94
Editorial	2,500.00
Clerical	2,300.00
Supplies	827.60
Contributors	1,454.75
	\$11,982.29

On the basis of printing 4,400 copies the following budget for 1982 is submitted:

Printing (paper, reprints, postage, etc.)	\$ 5,400.00
Editorial	2,500.00
Clerical	2,300.00
Supplies	800.00
Contributors	1,500.00
	\$12,000.00

The following persons have served as editors during the past year: Professor I. L. Sharfman and Professor Sumner H. Slichter, whose terms expire in 1982; Professor F. B. Garver and Professor N. S. B. Gras, whose terms expire in 1982; and Dr. L. C. Gray and Professor Myron W. Watkins, whose terms expire in 1983.

During the past year nearly 200 persons have co-operated in writing lead-articles, communications, reviews, and notes.

Appended are the comparative tables showing the distribution of contents by principal items, in continuation of tables previously given.

Respectfully submitted,

DAVIS R. DEWEY, *Managing Editor*

Editor's report is based on the calendar year. The Treasurer's and the Auditor's reports are on the fiscal year December 15, 1980, to December 12, 1981.

TABLE I—PAGES GIVEN TO EACH SECTION*

Year	Leading articles	Re-views	New books listed	Docu-ments, re-ports, etc.	Periodical abstracts	Notes	Theses	T
1920	395	109	155	98	122	42	15	
1921	331	103	133	39	117	38	11	
1922	293	91	158	35	124	37	13	
1923	298	122	184	26	113	43	14	
1924	339	110	191	23	113	42	18	
1925	325	131	178	27	110	38	23	
1926	270	137	184	15	108	43	27	
1927	262	120	195	32	114	42	27	
1928	335	111	176	12	121	45	23	
1929	315	181	173	18	1	52	28	
1930	348	154	210	12	0	58	29	
1931	369	170	197	13	0	40	25	

* Figures for 1911-19 may be found in the report for 1930, published in the *Journal of the American Economic Association*, March, 1931, p. 284.

TABLE II—EXPENDITURES

Year	Printing	Salary of editor	Payments to contributors	Clerical	Supplies	To
1920	\$6656.31	\$1500.00	\$1122.75	\$1595.64	\$307.90	\$11118.60
1921	5646.97	1500.00	64.50	1472.50	319.97	9004.94
1922	4795.23	1500.00	—	1370.00	314.77	7979.99
1923	5032.59	1500.00	—	1650.09	437.86	8620.54
1924	5423.23	1500.00	1110.25	1464.01	305.32	9802.81
1925	5713.01	1500.00	1133.50	1757.32	406.36	10519.99
1926	5332.24	1500.00	1128.00	1589.86	323.43	9873.53
1927	5619.20	1500.00	1013.75	1806.50	297.25	10236.70
1928	5321.95	1500.00	1190.50	1956.50	375.37	10344.22
1929	4927.62	1500.00	1328.75	2004.50	261.72	10022.61
1930	5386.67	2500.00	1447.75	2253.00	347.80	11935.22
1931	5399.94	2500.00	1454.75	2300.00	327.00	11981.69

REPORT OF THE FINANCE COMMITTEE

During the year ending December 12, 1931, the following changes in the statement list were made:

00 Commonwealth Edison Company 1st 5's, due 1948, called	\$2,208.65
30 Armour and Co. of Delaware 1st and Ref. Series "A" 5½'s, due 1948, sold	1,389.50

The proceeds from these bonds, together with additional funds, were invested as follows:

00 Alabama Power Co. 1st Mtge. Lien and Ref. 5's, due 1956	\$1,042.50
00 City of Cleveland Water Works 4½'s, due 1938	1,039.00
00 City of New York Corp. Stock Water 4's, due 1930	1,007.50
00 Commonwealth Edison Co. 4's, due 1931	1,895.00
00 Detroit Edison Co. Gen. and Ref. Series "D" 4½'s, due 1931	1,042.50
00 Great Northern Railway Co. Gen. Mtge. 7's, due 1936	1,105.00
00 Sinclair Crude Oil Purchasing Co. 10-Yr. Series "A" 5½'s, due 1938 ..	1,032.50
00 Southern Pacific Railway 50-Yr. 4½'s, due 1931	927.50
00 United States of America Treasury 8½'s, due 1949	1,528.50

For many years the Association has maintained a savings account with the Central Trust Company of Cambridge, Massachusetts. While no question as to the safety of this account, it was the sense of your Committee that it, segregated for purpose of investment, should be invested in readily marketable securities that would lend themselves to frequent scrutiny and liquidation. The account, therefore, was closed, and the funds, together with proceeds of the bonds sold, were invested in the list of securities described here.

The total investments of the Association, carried at cost or market, whichever is lower, now amount to \$82,205.19. The market value of the list on December 22 was \$6,827.04 below cost. The investments of the Association have been formally reviewed quarterly by your Committee, and have in fact been investigated more frequently than this. The annual interest return from the list now amounts to \$1,964.85.

The year 1931 has been notorious for declines in all types of security prices. Your Committee has not regarded the portfolio of the Association as an account in which the securities were to be traded for profit. It has followed a policy of watching for stability of earnings of the issuing companies, and its ability to meet the principal account at its maturity. Whenever any security has been unable to meet these two tests, it has been promptly sold and funds reinvested in accordance with the principles here stated.

At the end of last year, Mr. Waddill Catchings, who had served on the Finance Committee since 1925, tendered his resignation. The Executive Committee appointed Mr. George B. Roberts, Jr., of the National City Bank of New York to fill the vacancy.

The list, at market or cost, whichever is lower, stands as follows:

00 Alabama Power Co. 1st Mtge. Lien and Ref. 5's, due 1956	\$ 965.00
00 Bell Telephone Company of Pa. 1st and Ref. 5's, due 1948	1,978.00
00 By-Products Coke Corp. 1st Mtge. 5½'s, due 1945	598.75
00 Chicago, Rock Island and Pacific Equip. Tr. Series "P" 4½'s, due 1936 ..	900.00
00 City of Cleveland Water Works 4½'s, due 1938	950.00
00 City of New York Corp. Stock Water 4's, due 1930	780.00

2,000	Commonwealth Edison Co. 4's, due 1961	1,625.00
1,000	Crown Willamette Paper Co. 1st S.F. 6's, due 1961	705.00
1,000	Detroit Edison Co. Gen. and Ref. Series "D" 4½'s, due 1961	925.00
1,000	Erie Railroad Co. Ref. and Imp. 5's, due 1975	875.00
2,000	Great Northern Railway Co. Gen. Mtge. 7's, due 1936	1,600.00
2,000	Illinois Bell Telephone Co. 1st and Ref. "A" 5's, due 1956	2,000.00
2,000	Illinois Central Railroad Co. 1st and Ref. "A" 5's, due 1963	900.00
1,000	Louisville Gas and Elec. Co. 1st and Ref. 5's, due 1952	915.00
1,000	National Dairy Products Corp. 5¼% Debentures, due 1948	900.00
1,000	North American Edison Co. Deb. Series "C" 5's, due 1969	725.00
5,000	Northern Pacific Railway Co. Ref. and Imp. 6's, due 2047	2,500.00
1,000	Ohio Power Co. 1st and Ref. "D" 4½'s, due 1956	900.00
2,000	Pacific Gas and Electric Co. 1st and Ref. 5½'s, due 1952	1,900.00
2,000	Pacific Mills, Ltd. 1st Serial 6's, due 1935	1,400.00
1,000	Pennsylvania Railroad Co. Deb. 4½'s, due 1970	900.00
1,000	Sinclair Crude Oil Purchasing Co. 10-Yr Series "A" 5½'s, due 1938	900.00
1,000	Southern Ill. and Mo. Bridge Co. 4's, due 1951	400.00
1,000	Southern Pacific Railway 50-Yr 4½'s, due 1981	900.00
1,000	United Biscuit Co. 6's, due 1942	900.00
2,000	United States of America 4th Liberty Loan 4½'s, due 1933	2,000.00
1,500	United States of America Treasury 8½'s, due 1949	1,500.00

Respectfully submitted,

C. H. Crennan, *Chairman*

F. S. DEIBLER

GEORGE B. ROBERTS, JR.

REPORT OF THE REPRESENTATIVES OF THE AMERICAN ECONOMIC ASSOCIATION TO THE AMERICAN COUNCIL OF LEARNED SOCIETIES

The following is a cutting from the annual report of the American Council of Learned Societies that is thought to be of special interest to members of the American Economic Association:

Members of the staff have carried on certain specific projects or studies, such as the *Catalogue of Current Bibliographies*, a planographed trial edition of which was prepared for the meeting of the UAI, the study of American philological journals, which a preliminary report will be presented to the Council at the next annual meeting, the final editing and preparation for publication of the report on *Linguistic and National Stocks in the Population of the United States in 1790*, which is to be published by the American Historical Association, and the revision of a *List of American Series Publications in the Humanities*, which will be printed in an early number of the *Bulletin*.

Glossary of Medieval Italian Terms of Business. (A project of the Mediaeval Academy of America.) Dr. Florence Edler, working under the direction of Professor N. B. Gras, has completed a first part of the *Glossary*. Three hundred entries from this part are being planographed for preliminary distribution during December. The entries deal with accounting, banking and exchange, insurance and surety, forms of business association and of sales, business men, employees and business auxiliaries, transportation and warehousing, and customs dues and tolls. During 1931 plans have been approved by the Academy for the continuance of Dr. Edler's work and for enlisting the aid and co-operation of other scholars, including an Italian, to continue the study of Italian terms. Plans have also been approved for initiating a study of medieval Latin terms, particularly as found in Genoese documents.

Respectfully submitted,

WALTER F. WILLCOX

EDWIN F. GAY

REPORT OF THE JOINT CENSUS ADVISORY COMMITTEE

A meeting of the Joint Advisory Committee of the American Statistical and American Economic Associations with the Director of the Census was held at the Bureau of the Census, March 18 and 14, 1931. The main subject of discussion was the wisdom of planning a new series of monographs, and at the end the Committee recommended a provisional list of five, two of which are understood are now in course of preparation each by a member of the Committee.

During the period after the problems growing out of the census have for the most part been settled and before questions arising in connection with the intercensal work on other subjects come to the front, the Director of the Census has had little occasion to consult with the Advisory Committee.

The following resolutions were adopted:

199. Resolved that in addition to continuing the series of monographs started after the census of 1920 the Committee recommends that a series of briefs and more popular studies be prepared within the census period to take the place of the text of earlier reports.

200. Resolved that the Committee recommends that the Census Bureau aim at the preparation of brief studies on each group of tables in each of the four main reports to which the Census of 1930 will be divided.

201. In view of the extensive experience of the Department of Agriculture in research in its field, the Advisory Committee recommends that the preparation of studies and monographs in the field of census statistics of agriculture be limited to a few monographs based upon census material.

202. Resolved that the Advisory Committee recommends that a series of chapters on the statistics of distribution, wholesale and retail, in its various phases based on the results of the census of distribution be prepared for publication within the census period.

203. The Advisory Committee recommends that every effort be made to finish the publication of the census of 1930 at the earliest possible date and in any case within a three year census period ending December 31, 1932.

204. The Advisory Committee believes that the series of monographs started after the census of 1920 should be continued but that the number to be published within the present census period should not exceed six.

205. Resolved that the Advisory Committee suggests the following as a provisional list of subjects for monographs:

- (1) Occupational Changes in the United States
(Author—Professor King)
- (2) Vital Statistics in the United States, 1900 to 1930
(Author—Professor Willcox)
- (3) Differential Fecundity
(Author—Dr. Notestein)
- (4) Location of Manufactures
(Author—Professor Thompson)
- (5) Age Composition of the Population of the United States
(Author—Professor Chaddock)

206. Resolved that the Advisory Committee recommends that the office be requested to prepare as early as possible a typical study and submit it to the members of the Advisory Committee for their comments.

207. Resolved that the Advisory Committee recommends that the Bureau of the Census prepare a topical index to all the volumes of the Fifteenth Census.

Respectfully submitted,

W. F. WILLCOX

REPORT ON THE ENCYCLOPAEDIA OF THE SOCIAL SCIENCES

Since the last annual report which was made in December, 1930, the work has progressed satisfactorily. Volumes 4, 5, and 6 appeared in 1931, and Volumes 7, 8, and 9 are either in the printer's hands or in a forward state of preparation, and will appear in 1932. There is no reason why we may not look forward to a completion of the entire fifteen volumes before the end of 1934.

The efforts that have been necessary in order to maintain our standards and to keep to our program of three volumes a year have been very great. For some time we have had a force of fifty-six helpers of whom some twenty odd have been assistant editors, each of them an expert in his own field, and the consequence has been that our expenses have been far more than was originally anticipated. We have for some time been spending for editorial purposes, including payment for contributions, \$215,000 a year. As a consequence the entire enterprise will give an outlay for editorial expenses of about \$1,250,000 instead of the \$600,000 originally estimated.

The carrying out of this great enterprise has been rendered possible by the help of the Rockefeller Foundation, the Carnegie Corporation, and the Russell Sage Foundation, together with contributions from individuals. Our budget for the coming year has been completely covered. We entertain a lively hope that we shall be able to push the project through to completion.

Although no effort has, for obvious reasons, been made to institute a drive or selling campaign during the present depression, it may be of interest to note that we have already sold about five thousand sets of the work in the ordinary channels. As soon as conditions permit, the publishers intend to institute a vigorous selling campaign.

The reviews which are now becoming abundant in the scientific journals of the entire world have been without exception uniformly favorable and many of them in fact embarrassingly laudatory. We hope to be able to maintain the same high standard for the rest of the work.

Respectfully submitted,

EDWIN R. A. SELIGMAN

REPORT OF AN INTERIM COMMITTEE ON RESEARCH

As the result of correspondence with Dr. Meredith B. Givens, Secretary of the Committee on Industry and Trade, of the Social Science Research Council, a meeting was held in Chicago, Illinois, on October 24, 1931.

The matter under consideration was how the Social Science Research Council and the American Economic Association might co-operate in the most effective manner to foster research.

The following report and resolutions were drafted to be presented for approval to the Executive Committee:

An informal meeting was held in Chicago on October 24, 1931, at the request of the Social Science Research Council in which the following persons participated: President E. L. Bogart of the American Economic Association, Professor F. S. Deibler, Secretary of the Association, Professor H. A. Millis, and Professor Max S. Handman, the representatives of the Association to the Social Science Research Council and Dr. Meredith B. Givens, the Research Secretary of the Council's Committee on Industry and Trade. Professor A. B. Wolfe, the third representative of the Association to the Council, was absent, but the present report was submitted to him for his approval.

The meeting grew out of a request from the President of the Social Science Research Council to the American Economic Association to consider ways and means in which the Council could co-operate with the American Economic Association in order to promote research in the field of economics. After canvassing the situation, the persons present at the meeting came to the following conclusions:

That they recommend to the Executive Committee of the American Economic Association that a standing committee be set up to be known as the Committee on Research, to be made up of three members, and to function for a period of three years. If possible, one of the members of this committee shall be one of the Association's representatives to the Social Science Research Council. The functions of this committee shall be as follows:

1. To sit with the Social Science Research Council during such times as the Council shall see fit in order to communicate to it those problems on which the Council's help and advice might be needed.
2. To receive from the Council information and suggestions concerning research in economics, and to submit to the Council similar suggestions.
3. To be the repository of such funds as the Association might receive from any source for the encouragement of research and to function as a clearing house to which requests might be directed for funds and information in support of research by the members of the Association.
4. To canvass the possibilities of setting up regional or local committees for the purpose of fostering economic research in those regions where at present, owing to financial and educational disadvantages, it is difficult, if not impossible, for the economists living in those regions to find the necessary time and support for such problems as they may feel impelled to investigate.

5. To co-operate with local and regional persons and groups in an effort to ascertain to what extent there exists research material which is in danger of being lost or scattered, and to take steps to safeguard and preserve such material.
6. To negotiate with the American Library Association in order to establish some arrangement by which significant foreign and domestic materials, such as statistical publications of governments and municipalities and fugitive material of interest to members of the Association, might be collected and stored in a few strategic centers, due attention being paid to already existing collections and the possibility of making these collections more effective and complete.
7. To encourage local and regional meetings of economists similar to those now carried on by the local branches of the American Statistical Association and, if possible, to see to it that these local and regional groups are visited occasionally by a member of this committee, by a representative of the Social Science Research Council, or by any other representative of the American Economic Association.

It is of course realized that a committee charged with such a program cannot carry on without adequate secretarial help and without sufficient funds to meet the expenses incident to its activity. It is hoped, and there seems sufficient reason for such hope, that funds can be obtained either through or from the Social Science Research Council or other agencies in addition to those collected from dues paid by the members of the Association. The setting up of such a committee and the range of its activities brings the American Economic Association in line with the activities of other scientific societies who are realizing that they have a responsibility towards those areas and towards those members who are barred from making their contribution to science because of the difficulties of time and resources under which they are laboring.

It is further recommended that the *American Economic Review* carry in its columns notices of meetings of these local groups and that a place be kept on the program of the annual meetings for the discussion of problems of research and its stimulation.

Respectfully submitted,

E. L. BOGART
F. S. DEIBLER
MEREDITH B. GIVEN
H. A. MILLIS
A. B. WOLFE
MAX S. HANDMAN

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OF THE

AMERICAN ECONOMIC ASSOCIATION

1932

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The American Economic Review

XXIII, No. 1 SUPPLEMENT

March, 1933

Papers and Proceedings
of the
Forty-fifth Annual Meeting
of the
American Economic Association

CINCINNATI, OHIO

DECEMBER, 1932

Edited by the Secretary of the Association

Publication Office: 450 Algonip Street, Menasha, Wis.
Executive Office: American Economic Association, Northwestern
University, Evanston, Ill.
Editorial Office: 222 Charles River Road, Cambridge, Mass.

Entered at the post office at Menasha, Wisconsin, as second class matter, September 16,
1922, at special rate of postage provided for in Act of October 3, 1917, and
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The American Economic Review

Vol. XXIII, No. 1

SUPPLEMENT

March, 1988

Papers and Proceedings
of the
Forty-fifth Annual Meeting
of the
American Economic Association

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Edited by the Secretary of the Association

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Publication Offices: Menasha, Wisconsin, and Evanston, Illinois
Subscriptions: American Economic Association, Evanston, Illinois

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PROGRAM OF THE FORTY-FIFTH ANNUAL MEETING

WEDNESDAY, December 28, 1932

10 A.M. ROUND TABLE CONFERENCES

1. *The Rise of Monopoly in the United States*

Chairman: Abbott Payson Usher, Harvard University

DISCUSSION: Chester W. Wright, University of Chicago; John Ise, University of Kansas; Abraham Berglund, University of Virginia; Harry W. Laidler, League for Industrial Democracy

2. *Farm Debt and Distressed Land Holding* (Joint meeting with the American Farm Economic Association)¹

Chairman: J. D. Black, Harvard University

DISCUSSION: B. H. Hibbard, University of Wisconsin; R. M. Green, Prudential Life Insurance Company; F. F. Hill, Cornell University; Herbert Simpson, Northwestern University; Thomas W. Cooper, University of Kentucky; D. L. Wickins, Bureau of Agricultural Economics; Chester Gray, American Farm Bureau Federation

3. *The Record of Insurance in the Depression* (Joint meeting with the American Statistical Association)

Chairman: Frank G. Dickinson, University of Illinois

DISCUSSION: David McCahan, University of Pennsylvania; G. F. Michelbacher, Great American Indemnity Company; E. L. Bowers, Ohio State University; C. A. Kulp, University of Pennsylvania; F. E. Wolfe, Procter and Gamble; S. H. Nerlove, University of Chicago

80 P.M. FIRST SESSION (Joint session with the American Association for Labor Legislation)

Presiding Officer: M. B. Hammond, Ohio State University

General Topic: *Reserves for Unemployment Insurance*

Papers: Richard S. Meriam, Harvard University; E. M. Burns, Columbia University

DISCUSSION: David A. McCabe, Princeton University; Warren B. Catlin, Bowdoin College; Paul H. Douglas, University of Chicago; W. M. Leiserson, Antioch College²

1:00 P.M. MEETING OF THE EXECUTIVE COMMITTEE

1:00 P.M. SECOND SESSION

Presiding Officer: Jacob H. Hollander, Johns Hopkins University

General Topic: *Stabilization of Industries*

Papers: George W. Stocking, University of Texas; C. T. Murchison, University of North Carolina

DISCUSSION: John D. Clark, University of Denver; Frank A. Fetter, Princeton University; Isador Lubin, Brookings Institution³

THURSDAY, December 29, 1932

9 A.M. BUSINESS MEETING—Reports of Officers and Committees, etc.

9 A.M. ROUND TABLE CONFERENCES

1. *American Economic Thought*

Chairman: E. L. Bogart, University of Illinois

DISCUSSION: E. A. J. Johnson, Cornell University; Broadus Mitchell, Johns Hopkins University; N. A. Weston,⁴ University of Illinois; A. D. H. Kaplan, University of Denver; Leo Rogin, University of California

2. *The Formation of Capital: Measurement and Relation to Economic Instability* (Joint meeting with the Social Science Research Council)

Chairman: Alvin H. Hansen, University of Minnesota

DISCUSSION: David Friday, Washington, D.C.; Simon Kuznets, National Bureau of Economic Research; C. O. Hardy, Brookings Institution; Winfield Riefler; James Harvey Rogers, Yale University

3. *Size of Business Unit as a Factor in Efficiency of Marketing* (Joint meeting with the National Association of Teachers of Marketing and Advertising)

Chairman: H. B. Price, University of Kentucky

DISCUSSION: Paul L. Miller, Iowa State College; N. H. Engle, Bureau of the Census; W. H. S. Stevens, Federal Trade Commission; W. J. Donald,

James O. McKinsey and Company; E. W. Benjamin, Pacific Egg Producers, Inc.; H. P. Sheets, National Retail Hardware Association
2:30 P.M. THIRD SESSION (Joint session with the American Statistical Association)
 Presiding Officer: Irving Fisher, Yale University
 General Topic: Federal Reserve Policy Since 1928
 Papers: Harold L. Reed, Cornell University; James Harvey Rogers, Yale University
 Discussion: E. W. Kemmerer, Princeton University; J. F. Ebersole, Harvard University
8:00 P.M. FOURTH SESSION (Joint session with the American Sociological Society, the American Statistical Association, and the Econometric Society)
 Presiding Officer: President Raymond Walters, University of Cincinnati
 Presidential Addresses: George E. Barnett, American Economic Association;¹ Luther L. Bernard, American Sociological Society;² Irving Fisher, American Statistical Association and Econometric Society³

FRIDAY, December 30, 1932

9:00 A.M. BUSINESS MEETING—Election of Officers, etc.
10:00 A.M. FIFTH SESSION
 Presiding Officer: B. M. Anderson, Jr., Chase National Bank
 General Topic: *The Tariff*
 Papers: Philip G. Wright,⁴ Brookings Institution; Percy W. Bidwell, University of Buffalo
 Discussion: Ernest M. Patterson, University of Pennsylvania; E. Grovenor Plowman, University of Denver
2:30 P.M. SIXTH SESSION
 Presiding Officer: Henry E. Hoagland, Ohio State University
 General Topic: *Real Estate Speculation*
 Papers: Ernest M. Fisher, University of Michigan; Herbert Simpson, Northwestern University
 Discussion: John R. Riggleman, Department of Commerce; Corrigan Gill,⁵ Federal Employment Stabilization Board

¹ To be published by American Farm Economic Association.

² Manuscript not received.

³ To be published in the March, 1933, number of the *American Economic Review*.

⁴ To be published by the American Sociological Society.

⁵ To be published by the American Statistical Association.

⁶ To be published in the *American Economic Review*.

THE purpose of the American Economic Association, according to its charter, is the encouragement of economic research, the issue of publications on economic subjects, and the encouragement of perfect freedom of economic discussion. The Association as such will take no partisan attitude, nor will it commit its members to any position on practical economic questions. It is the organ of no party, sect, or institution. Persons of all shades of economic opinion are found among its members, and widely different issues are given a hearing in its annual meetings and through its publications. The Association, therefore, assumes no responsibility for the opinions expressed by those who participate in its meetings.

F. S. DEIBLER

Secretary

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ROUND TABLE CONFERENCES

THE RISE OF MONOPOLY IN THE UNITED STATES

ABBOTT PAYSON USHER, *Chairman*

CHESTER W. WRIGHT.—In this discussion the term "trust" is used in the broad sense regardless of the form of organization adopted. The period covered is down to 1898, at which date the movement is greatly accelerated and new aspects develop, so that the conclusions here stated relative to the earlier movement are not necessarily applicable to that of subsequent years.

My method of procedure was inductive in character. I first made a list of the trusts formed within the period and then attempted to analyze their causes for growth and their sources of power. In view of the lack of adequate information it must be frankly admitted that the conclusions arrived at on this point are of a highly impressionistic character. The final step was to trace in the general economic development of the United States the changes tending to create conditions favorable to those causes of growth and sources of power which the previous analysis had indicated as most important.

By a cause for growth I mean a condition or influence impelling towards combination; by a source of power, a factor giving a combination an advantage over actual or potential rivals tending to build up and to maintain its monopolistic power. The same factor may appear in both categories; but this is not always the case, hence the differentiation.

In a broad sense there was but one important and impelling cause for the growth of trusts—the desire for greater profits. Other motives, such as the desire for personal prestige or leadership, were relatively insignificant. There are three main methods by which profits can be increased through forming a trust: (1) by checking the abnormal competition that is reducing profits below a fair return obtainable in an industry on the average under normal competition; (2) by reducing costs through securing any advantages of large-scale production and eliminating wastes of competition; (3) by raising prices through trust control above the level yielding a fair return so as to secure a monopoly profit.¹ These distinctions are difficult to apply in any concrete case, since they merge at an indeterminable point; yet they are useful for our purposes.

My analysis leads to the conclusion—hardly novel—that by far the strongest impelling motive leading to the formation of trusts at this period was the desire to check the heavy losses of potential profits resulting from an intensity of competition which at times threatened ruin to whole industries. The hope of also securing a monopoly profit was doubtless generally present, but was less important as an original and impelling impetus to action. Least influential of all was the expectation of reducing costs. The basis for my conclusions can only be summarized. In a large proportion of the industries where trusts were organized we have evidence of extreme competition and in most cases where more detailed evidence is available it is clear that the

¹ I omit the motive of promoters' profits as unimportant before 1898.

main concern was to check this competition. The large proportion of trusts formed which adopted a loose type of organization, such as the pool, rather than the consolidated type, indicates that reduction of costs was not the dominant objective. The pool's chief purpose is to check price cutting, and its potentialities for reducing costs, though varying with the form of agreement, are relatively limited and largely confined to reducing certain wastes of competition. Even among consolidations, many acquired inefficient plants and clearly relied more on buying out competitors or killing them off by resort to unfair methods of competition than on driving them out by lower prices based on lower costs.

Far more important than the motives leading to the formation of trusts are the sources of power of the trusts or the conditions which enabled those desiring to form a trust to build up and maintain monopolistic power; for without such power the movement would have slight social significance.

As a source of power, reduction of costs through obtaining the advantages of large-scale production and saving the wastes of competition does not appear to have been of marked importance in most cases at this period. The loose type of organization limited such potential advantage in most trusts. Among consolidations, while the savings of the wastes of competition would increase up to the point of absolute monopoly, this point was rarely attained; and it is doubtful if there were half-a-dozen instances—perhaps none—where the advantages of large-scale production continued up to the point where one concern could supply the whole market. Additional evidence is found in the weakness of so many trusts while the strength of others can best be explained on the basis of their possessing other sources of power. It should be added, however, that in a secondary manner the growing scale of production did in various ways further the growth of trusts.

Among the other sources of power—the one which my analysis suggests as by far the most important—was the use of so-called “unfair” methods of competition, especially where backed by large resources. It was not only very common but, even when combined with other sources of power, it was usually the chief element of strength. Probably next in rank was the possession of patent rights—of fairly frequent occurrence, though seldom the main source of power. Next might be placed control of a natural resource and then railroad discriminations, each a dominant source of power in only a few cases. Still less important was the check on foreign competition provided by an overprotective tariff. Finally there was a group of trusts not enjoying any appreciable and special source of power other than a common desire to act together to check competition.

The preceding analysis stresses the predominant importance of the growing ferocity of competition. The underlying economic developments chiefly responsible for this are: (1) the spread of the railroad system combined with the rate-making policies of the period; (2) the growing scale of production. For this period, at least, the latter has, if anything, been overemphasized and the former too generally neglected.

The years between about 1850 and 1885 mark the period during which the introduction of railroads exerted the most revolutionary influences upon the

economic order in this country. Except for the Atlantic coast region practically the whole country secured the main outlines of its railroad system during this period. In the seventies came the ferocious rate wars, rebating, and the adoption of a rate-making policy which stressed cutting rates to get traffic. Much the most rapid reduction in freight rates in the country's history occurred between about 1870 and 1885. The effects of these two developments on the intensification of competition are obvious.

The growing scale of production and size of the business unit were chiefly based on technological advance introducing machine methods, and the expansion of the market. Up to 1850, if not 1860, the introduction of large-scale factory methods of production had proceeded rather slowly. A marked impetus came from the Civil War. Then the two decades from 1870 to 1890 brought the most rapid rate of growth in manufacturing the country has experienced since census figures are available. The growth of population and per capita income provided a growing market, expanded geographically by the railroad developments. The railroad rate policy favoring highly competitive localities stimulated concentration of production. But, though individual plants were growing rapidly in size, the great and general expansion in the size of the business unit came after 1897. I would suggest as a tentative hypothesis that up to the latter eighties the domestic market for goods produced in most localities was generally expanding more rapidly than the size of the business unit, but that thereafter the reverse was more frequently the case; and that herein lies one reason for the accelerated growth and greater strength of the trusts in the subsequent period, despite the increased effectiveness of governmental opposition.

Other developments of minor significance can be briefly listed. The overdevelopment of certain industries during the Civil War was immediately responsible for several of the early pools. The downward trend in the general price level from 1865 to 1896 accentuated the severity of competition. The acceptance of the policy of high protection was advantageous for some trusts. The great activity in invention increased the number of cases where patent rights were a source of more or less power, though also at times undermining a source of power. Until declared illegal the device of the original trust form of organization was a facilitating factor. The changes in general incorporation laws started by New Jersey in 1888 were similar so far as the holding company is concerned, while the opportunities thus provided for promoters' profits were only significant after 1897. Until then the dominant factor underlying the trust movement was a combination of developments tending to produce in the last quarter of the nineteenth century a ferocity of competition more widespread and cutthroat in character than the world has ever witnessed either before or since.

JOHN ISRE.—Monopoly has plagued mankind for some thousands of years. It has existed in various forms at different times, and in many forms at almost all times; and in varying degrees has oppressed the people of every age.

In the ancient world, monopoly dominated the economic life to an extraordinary degree—state monopolies, and occasional privileged monopolies, usually

under complete domination by the state. The Pharaohs of ancient Egypt, and the Thinite monarchy as well, practically owned all of the land and mines, exploited the mines and carried on at least some of the trade, as state monopolies. The Phoenicians, too, are said to have carried on their trade through royal and privileged companies, somewhat as the English and French did in the late medieval period.

In early Greek history, we find a very different situation. Rugged individualists as they were, the Athenians enjoyed a far more democratic economic life, than the other earlier states, and they doubtless suffered far less from state or other monopoly. Large-scale establishments with slaves were a rare exception. In all history such establishments appear to a considerable extent only where there is an absolute monopoly of the branch of production concerned.

The market places in early Athens, where vegetables, fruit, cheese, fish, poultry, and game were sold, were generally simple affairs, and monopoly was probably difficult to secure. The corn trade, extremely important to a people dependent on imports, was regulated very closely. There were special magistrates in the control of the market. The *sitophylakes* saw that grain was sold at current prices, that millers sold flour and bakers bread at a rate proportionate to this, and that bread had a standard weight. Death was the common penalty for attempts to monopolize the market.

In the early history of Rome, there was a fairly democratic economic organization, in spite of the great privileged companies engaged in mining; and trade was reasonably free. Markets were held in the city every nine days; and the trade carried on with neighboring states was concentrated in the periodical great fairs. In the later Republic there was a growing domination of economic life by the state. Tenney Frank states that at the end of the Republic "the forces that worked in favor of large-scale and monopolistic production differed but little from those of a similar tendency today."

In the middle ages, as before, the industrial world was dominated by privilege and monopoly; but that privilege and monopoly was no longer imposed by a great despotic state, but usually by smaller units. Monasteries, lords, and military orders controlled most of the commerce and industry, and almost all of the land; and craft and merchant guilds grew up which limited economic freedom still further. The attention given to engrossing, regrating, and forestalling in medieval legislation indicates that those offenses must have been rather common.

The craft guilds took a considerable toll of the medieval consumers' dollar. As Weber says, "Externally, the policy of the guild was purely monopolistic." It usually undertook the policing of the industry in matters affecting the craft, and so controlled the technique and procedure; it tried to achieve compulsory membership; and in many places—conspicuously in Germany—it succeeded in establishing a guild district; that is, monopoly in a certain territory.

It is impossible here to discuss the various privileged companies of the later medieval and mercantilist period. In France, the state granted a great many exclusive privileges to private domestic enterprises; in England, ac-

ording to Levy, there was scarcely a commodity which was not the object of a monopoly. Many of the English monopolies were held by joint stock trading companies, controlling trade with various parts of the world.

The first colonies in America were planted by noble proprietors or privileged companies; but from the first the colonists were generally hostile to monopolies, and granted monopoly privileges only where the public utility aspects of the situation clearly warranted such action. Such monopoly as existed in the early history of this country was, for the most part, of a very different character—or perhaps it should be termed lack of competition rather than monopoly.

From a study of an isolated pioneer community in central Kansas, I was driven to the conclusion that those people probably suffered more from monopoly—or from lack of competition—than is generally supposed. In the first few years of that community, there was only one store within a radius of sixty miles, and this store afforded the only market for the settlers' products, and the only source of practically all goods purchased. The proprietor retired with a fortune in about ten years. When the railroad came, a town sprang up, but much of the business was monopolized as before. The first bank soon failed—for the benefit of one of the officers—until the next bank had a near monopoly for twenty years, lending money to farmers at a high rate of interest, and discounting lightning rod and pack peddler notes at rates even higher, in addition to regular banking business. It proved highly profitable. The grain elevator which came with the building of the railroad monopolized the grain market for years, and one cattle buyer bought most of the cattle that were shipped out of town. Farmers occasionally hauled grain twenty miles, or even more, to get to another railroad, and into a somewhat competitive market. When a flour mill was built, it afforded a competitive market for only a small amount of grain, and for a small number of cattle each year. When the first lord proprietor of the community retired, a lumber yard was established, at which the farmers bought lumber for their new houses and barns at such monopoly prices that the lumberman was within a few years the wealthiest man in the community. When a threat of competition appeared, he built a second yard across the street to preserve his control of the market. A line creamery was built and soon there was complaint of falling prices paid for cream—with what justice I was unable to learn. In retail stores there was competition, but of course it was sluggish.

Thus we see that for most of our present forms of monopoly we have historical precedent—perhaps running back to antiquity. We have no federal fiscal monopolies, but in such monopolies as the steel corporation, and doubtless other capitalist monopolies, we have something similar to the privileged monopolies of late medieval times—recognized, if not definitely approved, by the state. Labor monopolies have much that was common to the fields of Greek, Roman, and medieval times. Today banking and finance are often closely associated with monopoly just as in Roman and medieval times, especially in medieval Italy.

It is the thesis of this paper that monopoly is a very old disease; that it

has flourished in different forms almost everywhere and at all times. Various considerations indicate that monopoly was almost always a very heavy burden, even down into the nineteenth century. The monopolies that exploited the people a generation or two ago, took money that had a high marginal utility. We are so rich—or perhaps I should say, we have been so rich, and soon will be so again—that we can afford to pay monopoly prices without great suffering. This is doubtless an important reason for the extraordinary apathy of the people toward monopoly during the past decade or two.

I trust that nothing in this paper will seem to suggest a policy of ignoring or condoning the practices of the great capitalistic combinations, or a let-up in our efforts to get them under control. There is some reason to believe that it may be easier to control them finally, than to secure relief from local monopoly conditions in large cities. These larger concerns, by their very size, are somewhat in the open, and may easily be made more so. When they attain a considerable element of monopoly power, they will lose much of the vitality that competition is supposed to insure; and, as the socialists suggest, may even finally be taken over by the government. The larger they become, and the greater their monopoly power, the more easily this may be done, and the less will be the loss in efficiency involved. Perhaps we may have to admit that, in the long view, the era of modified competition was a brief and exceptional era in human history, and admit the inevitability of further monopoly in the system which is destined to follow competitive capitalism.

A. BERGLUND.—Present-day industrial technique is characterized by what is called large-scale production, or large output by single units or ownership organizations. It is true that the large producing unit has not yet appeared in several important branches of industry.

Large-scale production and monopoly production are not synonymous terms. Large producing units may compete as well as small units. When large business organizations are so formed as to eliminate competition locally, this elimination by virtue of rapid and cheap transportation is often offset by rivalry from similar organizations in more remote regions. It cannot be said, therefore, that the development of large-scale production has thus far sounded the death-knell of competition as a regulative factor in business and in the adjustment of market prices.

In certain instances the very nature of the product or services rendered practically precludes any real competition. Two or more competing telephone companies, for example, would be something of a nuisance rather than a service to patrons. What are called public utilities, especially where they serve local communities, are generally monopolies. Such monopolies are recognized at law, and charges for the services they render are fixed, at least in theory, by governmental authority. In the railroad business, where a considerable measure of competition still exists, rates do not reflect the ups and downs of trade as do ordinary commodity prices where commercial rivalry is relatively free.

In addition to these instances and others that might be mentioned, questions are being raised as to the possibility of maintaining competition as the

sole or principal regulating factor in the fixing of price levels in industries to which our anti-trust laws apply.

It has been said that men compete in order to destroy competitors. Competition, according to this view, is a scramble for monopoly power. Let competition have full sway and the result will be one sole survivor—a monopolist. This contention is not entirely true, if the competing units are many and the fields open on practically the same terms to all. The attainment and maintenance of monopoly power for most industries is conditioned upon the control of some strategic or crucial step in the productive process like exclusive ownership of the sources of raw material, possession of patent rights, control of transportation or special transportation favors by common carriers. The preservation of competition is largely a matter of preventing any control of the kind indicated.

Over a considerable, and apparently increasing, part of our industrial domain forces are at work making monopoly control in some form practically inevitable. These forces are especially noticeable when large-scale production limits the number of producers who can supply the country's demand to but a few, and when the capital invested in such production takes fixed and highly specialized forms. How far these forces have operated to create and maintain monopolies in the United States is difficult to estimate.

A good illustration of an industry whose technique calls for a high degree of concentration is the manufacture of what is called tonnage steel; i.e., steel produced in large amounts and used in the making of plates and sheets, rails, structural shapes, pipes and tubings, and the like. It is good economy for the producer to control his supply of iron ore and metallurgical coal and manufacture his own pig iron.

The showing with reference to the economies brought about by a vertical combination of successive stages in production does not tell the whole story of the effectiveness of very large producing units. Most tonnage steel is what is called soft steel—steel of low carbon content and with little but generally some alloy metal. The demand for this steel, however, has generally been such that the producer would provide a product of varying degrees of softness and hardness according to the uses to be subserved and the differences in the shapes to be assumed. Production is thus facilitated by separate furnaces and rolling mills. The growing demand, too, in late years for certain alloy steels, particularly in the manufacture of automobiles and certain kinds of heavy machinery, is leading to a further elaboration in both vertical and horizontal directions.

The manufacture of tonnage steel, therefore, is an industry in which efficient production involves concentration in a very limited number of concerns or corporations. The annual output of heavy standard steel rails in the United States (including the exported product) under normal conditions is from two and a half to three million tons. The great bulk of this tonnage is furnished by the plants of three or four companies.

It has been said that two or three large producers can compete as vigorously as a hundred small producers. In a sense this is true. But competition, if it is real and has any material influence on price levels, will almost inevitably act differently in the two cases.

Reverting again to the steel business, let us note what has happened during the past thirty years, or since this industry came under the control of a few large corporations or consolidations. The outstanding producer in this field, of course, is the United States Steel Corporation. If one were asked whether or not this organization exercises monopoly control over the output of any one or more of the leading groups of steel products, he would have to answer that in a technical sense it had no such control. There is little or no evidence of the resort to unfair competitive methods looking toward the elimination of rivals. Neither has there been any marked disposition, either on its own initiative or in conjunction with independents, to raise prices unduly. Whether or not steel prices are too high is a matter of opinion, but many persons acquainted with the steel business characterize the price policy of the corporation as a moderate one. Nevertheless, an examination of steel prices shows that since the organization of this corporation some quotations have been pegged at certain figures for long periods—in one case for several years at a time—irrespective of the fluctuations of trade. Whether such pegging was made possible by virtue of the size of the corporation in an effort to stabilize prices in which independents on their own initiative joined or by some joint action with one or more of the larger independents is not known. In either case some control was exercised. This, of course, is not saying that the policy of price stabilization has been harmful to the public. In fact much may be said in favor of such stabilization. However, a stabilized price is not strictly speaking a competitive price.

Closely connected with an industrial technique which in some lines of production makes for a high degree of concentrated control is the importance of capital in fixed and highly specialized forms.

In some branches of manufacture the care and upkeep of idle equipment is nearly as costly as the maintenance of the same equipment steadily employed, to say nothing of interest charges on the investment involved. In certain metallurgical industries the spasmodic or intermittent use of furnaces is much more costly than their constant use. Powerful pressure from the very nature of such industries is thus brought to bear upon producers to secure some measure of stabilization.

Price stabilization is sought not necessarily in the interest of high selling values or what is called monopoly prices, but for the purpose of limiting those fluctuations in demand that often result from market uncertainty. A business organization with a large capital outlay, a great part of which is in fixed and highly specialized forms, has reason to fear a price demoralization wherein the costs per unit of output tend to mount rapidly at the very time that market conditions force prices downwards. Price stabilization, however, can only be brought about when a single organization controls a large enough proportion of a country's output to influence independents to adopt its price policy or act in unison with other organizations so as to establish some kind of market control. This in a sense means monopoly but it is monopoly which arises out of much of our present-day technique.

In many fields great industrial organizations are appearing whose price policies are only to a limited degree, if at all, affected by ordinary competitive

conditions. Grover Cleveland's famous aphorism, "A condition confronts us, not a theory," may well be applied to this situation. Or to state it more precisely: over an important part of our industrial organization a condition confronts the nation to which a past theory does not apply.

HARRY W. LAIDLER.—The valuable papers by Professors Wright, Ise, and Berglund re-emphasize the great importance of monopoly trends in the industries of the United States. From 1919 to 1928, over seven thousand firms were merged or acquired in mining and manufacturing alone. Two hundred corporations controlled in early 1930 nearly one-half of all non-banking corporate wealth in the country, and received 48 per cent of the income of non-banking corporations. If the trend of the last twenty years continues, by 1960, these two hundred corporations will control about 70 per cent of all corporate activity, while if concentration continues they will control about 85 per cent of the non-financial corporate wealth.

Professor Ise has cited a surprisingly long list of governmental monopolies. Most of the monopolies of the past ages, unfortunately, were run not in the interest of society at large, but in the interest of a king or a small governing group who dominated the political machinery of the country. The government monopoly of the future, if it is to solve the problems of present-day industry, must have as its object the welfare of society, not the aggrandizement of the political group.

The days of free competition in many industries are over, never to return. Free competition was merely a passing phase of our industrial system. The growth of large-scale production and quasi-monopoly has weakened the arguments formerly used against an advance to public monopoly and makes the transfer from private to public ownership less difficult. It is merely necessary to socialize one, two, or three corporations in a given field, in order to control the greater portion of the industry.

The modern government monopoly, too, is showing a flexibility not shown by monopolies in the past. Instead of departments of government, they are coming to be public corporations of the type of the Port Authority of New York, semi-autonomous in their nature and removed from certain undesirable restrictions of political leaders. If to this corporate structure could be added a functional control which gave adequate representation to all parties at interest, an efficiency combined with democracy of a high order might be expected in the commensurate future.

Our great industries are industries involving mass production. If the products they are able to produce are to be consumed, they must be purchased by the masses. But, with our present-day control of industry, there has been a growing lag between our power to produce and the power of the masses to consume. If a balance is to be made between our productive machinery and our power of consumption, increasing numbers of thinkers insist that we must change our methods of industrial control and introduce planning on a national scale. The important power of planning cannot be left to private monopoly intent on private profit.

If these contentions are substantially correct, does it not present to economists a great challenge; a challenge to do their part not in seeking to re-

store the planless competitive system of the past, but to place our industrial structure under such social control that our increasingly complex machinery of production and distribution will bring security, eliminate poverty and useless luxury, and bring about the full utilization of the resources of the country for the common good.

VANDERVEER CUSTIS.—Much has been said at this session about the problem of monopoly; but in considering it we should not forget that there is also a serious problem of competition. Such competition as can exist provides very inadequately in many fields of industry for the adjustment of production to demand. In many cases it involves losses from the point of view of society as serious as those that result from monopoly, at least when monopoly is subject to even a moderate degree of public regulation.

While a study of production and prices under assumed conditions of perfect competition is both legitimate and useful, we should recognize that we never have conditions of perfect competition. Such conditions include among other things a large, if not an infinite, number of competitors; but in many fields of industry economy in production results in a small number, with a large share for each in the total supply. Where the number is large the action of a typical concern can have but little effect on the price. Where it is small, the action of a typical concern, if not offset by that of the others, can have an appreciable effect on the price. Under such circumstances an understanding, not necessarily in the sense of an agreement, but merely in the sense that each has a knowledge of the situation and an appreciation of its significance, may put some restraint on competition. From one point of view this is a problem of monopoly, but it arises out of the imperfect character of such competition as is practicable.

It has been said that pooling does not bring about economy in production; but marketing is a part of production, and while pooling has doubtless been undertaken primarily as a means of restraining competition, it may bring about significant reductions in the cost of marketing.

One of the chief reasons for the inadequacy of competition as a regulator of production lies in the importance of fixed costs. This is conspicuous in the case of steel, as has been pointed out by Professor Berglund. It is conspicuous in the case of oil; and it is worth noticing that two of the states that have been most opposed to trusts have resorted to martial law to restrict the production of petroleum. It is not so generally recognized that in the case of agriculture some of the most serious problems arise out of competition in the presence of fixed costs; though it is clear enough that something is wrong. The farmer's land represents to him a fixed cost. So do most of his improvements and much of his equipment. The government has tried to encourage him to restrict production, but the individual's share in the total output is so small that if he were to restrict his production he would increase his unit cost, but have practically no effect on the price. This problem is distinctly one of competition, and recent governmental attempts to deal with it have really been attempts to introduce into the situation an important element of monopoly.

Recognition of the evils of competition does not imply that com-

plete monopoly is the only alternative. There are degrees of monopoly, and in some cases a very moderate restriction of competition may be all that is needed. How much competition should we have? What limitations should be imposed upon it or upon monopoly? The answers to these questions will differ from industry to industry and no single or simple formula can be applied. It need not be denied that the presence of monopoly gives rise to difficult problems of regulation, but the inadequacies of competition as a means of regulation should be more generally recognized than they are.

FRANCIS TYSON.—May I point out that the emphasis Professor Berglund makes in his pertinent illustrative material from the steel industry needs to be shifted somewhat in the light of amazing recent changes?

Obviously, the tendencies making for price control had not operated to stabilize the industry so far as control of production was concerned.

Until the depression, reduction of costs by virtue of integration and large-scale production was not a relevant issue, as compared with nonexistent small units, as the battle was one of giants. Six or eight companies produce over 90 per cent of the steel ingot tonnage in a good year. They enjoy similar advantages and include the new low cost National Steel Corporation (the new blast furnaces of the industry, for instance, produce not 600 to 700 tons daily, but 1000 to 1200, and cost, with equipment, not 2 million dollars, but 4 to 5 million dollars a unit).

The real problem is that of uncontrolled large-scale competition, sustained by the expenditure by the Corporation of some 110 million dollars on steel ingot capacity at South Chicago and Gary, and about 70 millions at Lackawanna, and Sparrow's Point by the Bethlehem, 1928-30. The problem of controlling new investment and relating capacity to rate of increase of demand was still awaiting solution (with the depression, of course, came advantages to small steel producing units, because of the collapse of scrap price—scrap is new in acid open hearth steel making—as compared with the continuous pig iron process of the big units).

But the great problem of the industry is still that of excessive, unused capacity, the pressure of fixed charges, and depreciation costs. If depression continues, there will be strong pressure toward lowered prices, and even toward liquidation and reorganization in some important sections of the industry. Failure of price understanding to bring production control would seem to make some such approach to national organization for the industry, as suggested by the Swope plan, pertinent indeed!

THE RECORD OF INSURANCE DURING THE DEPRESSION

FRANK G. DICKINSON, *Chairman*

In opening this session greetings were extended by Mr. Hardcastle, vice-president of the Union Central Life Insurance Company, in whose library the meeting was held. Four papers were read and were discussed. The following report presents an abstract of the material and ideas that were set forth.

DAVID McCAHAN.—Strange as it may seem, the general health conditions of life insurance policy holders have improved during the depression. It is interesting to note that the death rates per 100,000 for ordinary and industrial business, as indicated in a recent address of Dr. Augustus S. Knight, before the Twenty-sixth Annual Convention of the Association of Life Insurance Presidents, were lower for the first ten months of the year 1932 than for a similar period in any of the preceding ten years. Moreover, the average for the last three years is better than for any one of the eight years preceding 1930 with the exception of 1927. It is significant, however, that this record is very largely due to the inclusion of industrial business. If ordinary business be taken by itself, the death rate for the first ten months of 1932 was higher than for any of the preceding ten years, except 1929, and the average for the three years of the depression was substantially higher than for any of the eight years preceding 1929.

Another important influence upon the mortality ratios of ordinary companies has been the "Jumbo" policies. The mortality under policies of a large size has been very much higher than under smaller policies and weekly premium forms.

The disability problem antedates our present economic troubles. As we all know, the disability situation was quite unsatisfactory even during the prosperous years preceding the crash of 1929, one authority having estimated about two years ago "that the ultimate losses of life companies from the disability experiment will run somewhere between \$100,000,000 and \$250,000,000." The report of the Special Committee to the National Convention of Insurance Commissioners was submitted in September, 1929, and the uniform clause became effective on July 1, 1930. But the correction had not been made sufficiently soon, so starting in the fall of 1931, many companies restricted the coverage offered to waiver of premium, and withdrew entirely from the field of income disability underwriting, their exit being so hurried that it assumed the nature of a stampede. Others have substantially modified their clauses and increased their rates. The important modifications have been extension of the waiting period to six months, lowering of the age before which disability must occur to fifty-five, and reduction of benefits to waiver of premium and five dollars monthly income per \$1000 of face. Underwriting rules have, of course, been tightened and the maximum amount of protection available to the prospect has been materially reduced.

There has been a disposition on the part of some to believe that we may be entering into an era such as from 1874 to 1885. Throughout that twelve-

faithfully, taking its losses philosophically, meeting its responsibilities courageously, and revising its policies and practices so that they will conform to the new order of things which we all hope is now emerging from the chaos of the depression.

E. L. BOWERS.—The cash demands made upon the life companies both in respect to policy loans and surrenders as well as in meeting contract obligations have been exceedingly heavy. For the three-year period now closing, payments on death claims to estates or beneficiaries amounted to \$2,227,622,000 and cash payments to living policy holders accounted for \$4,912,484,000, a total cash outlay of \$7,140,056,000, a sum equal to about one-third of total assets. Policy loans and surrender values comprised over 56 per cent of the total disbursements.

During the same period the cash income of the companies amounted to \$11,820,880,000, of which 78 per cent came from premium payments and 22 per cent from interest, dividends, and rents. Thus, a total of over \$4,180,000,000 was available for expenses and investment. The actual investment operations, however, were much larger than this sum indicates. Through the sale, redemption, or maturing of securities and the sale of real estate the companies received \$8,479,762,000; through investment and re-investment they acquired capital items amounting to \$7,771,465,000.

DISTRIBUTION OF INVESTMENTS

Principal United States Legal Reserve Life Insurance Companies

	Investment portfolio at end of 1929 %	New investments made during		
		1930	1931	1932
		%	%	%
Farm Mortgage Loans	14.1	10.0	7.6	9.6
City Mortgage Loans	39.4	45.0	36.5	31.8
Railway Bonds and Stocks	22.4	10.0	10.4	1.0
Public Utility Bonds and Stocks	11.7	15.9	21.4	10.1
Miscellaneous Bonds and Stocks	3.1	8.8	5.0	4.9
U. S. Government Bonds	2.4	3.1	6.7	19.0
State, County and Municipal Bonds	3.8	4.5	9.8	14.8
Canadian Government Bonds	2.8	2.6	3.4	3.7
Other Foreign Government Bonds	.3	.1	.2	5.1
Total	100.0%	100.0%	100.0%	100.0%

It is evident that the companies have made concessions in the interest of liquidity, without, at the same time, sacrificing too much in interest return. Mortgages, a non-liquid but relatively high yield investment, and government and municipal bonds, a liquid but relatively low yield investment, are now of approximately equal importance in new investment distribution and together comprise over four-fifths of total investments. With a few exceptions those companies with the largest proportion of farm mortgages have encountered the most difficulty, the amount of mortgages in arrears ranging from 15 per cent to 20 per cent of mortgages held.

United States government bonds have undergone the greatest change of any of the new investments of the past three years. At the end of 1929 the Federals comprised only 2.4 per cent of total investments, advanced to 3.1 per cent in 1930's new investments, jumped to 6.7 per cent in 1931, and

soared to 19 per cent in 1932 placements, an increase of 691 per cent in three years.

This tremendous increase in total government bond purchases, now amounting to nearly 48 per cent of all new investments, indicates that the companies are vitally interested in security and liquidity, and as far as the latter is concerned, this practice stands out in marked contrast to that of previous years.

Policy and premium loans and lapses constitute the principal investment problem of the depression. Without them, as was once the case, the companies could weather a prolonged depression with little difficulty. These privileges, the legal rights of the policy holder, have transformed life insurance companies into demand paying institutions, and have exposed them to all the problems which "cash over the counter" demands. Suppose this depression had been more severe than it has been to date, or suppose it had been of longer duration, would the time not have come when the companies would have had to sell bonds at prices below the amortised values, and stocks below the "commissioner's" values, and foreclosed real estate below the amount of unpaid principal plus foreclosure and interest charges, and real estate mortgages below their current listing? The spread between income and disbursements has steadily narrowed since 1928, the income dropping from 147 per cent of disbursement in that year to 118 per cent at the close of 1931. True, there was a gross surplus of nearly two billion dollars at the beginning of 1932, only a minor part of which was in cash. To convert the balance would have entailed loss.

To date the companies have met their cash demands. They have done everything that their sixty-five million contracts could demand of them. And they have done it with very little assistance. The Reconstruction Finance Corporation from February 2 to August 31 authorized loans amounting to slightly over one and a third billion dollars, only 5.8 per cent of which was for insurance companies of all types, the principal potential borrowers being banks and trust companies, building and loan companies, and railroads. The amount loaned to life insurance companies to date is at the outside not more than one dollar for each five hundred dollars of assets when all companies are considered.

Although the situation today is considerably different from what it was in former depressions certain aspects of life insurance experience during the economic disturbances of the seventies and nineties may add something to an understanding of present problems. Real estate foreclosures were more numerous then than now, some of the acquired properties being held by the companies until the turn of the century. During the twenty-year period, 1878 to 1898, real estate always comprised more than 10 per cent of total assets, in some cases contrary to the laws governing investment. Not until after the Armstrong investigation did real estate holdings drop below 6 per cent.

In the depression of 1893, policy loans amounted to only 2 per cent of assets, not because the people did not need them but because they were not obtainable under the contracts, either because the companies were in re-

ceivership or the policies had not yet obtained cash values under the existing laws. The number of life insurance company receiverships today is negligible in contrast with the many failures of the earlier period. All of these things, and in fact almost everything which affects the life insurance business, depend fundamentally upon the future course of business in general.

C. A. KULP.—There are at least three questions that need to be answered in order to present a statement of the investment experience of insurance companies, in any period. They are: What has been the rate of income earned on their assets? What have been the capital losses or gains? What appear to be the results on the financial condition of the companies, and ultimately on their safety?

The net rates of investment return (Connecticut Reports) from investments (net after deducting investment expense) for the years 1928-31 have been as follows:

	Fire and Marine Casualty (% of admitted assets)	
1928	.085	.086
1929	.086	.086
1930	.042	.039
1931	.042	.039

The outstanding feature of these figures is the fact that both classes of carriers have maintained a higher investment return in the two depression years than before. While it is quite obvious that the high prices of boom years serve to keep down yields, it is just as true that the low prices of depression will produce relatively high investment returns only as long as dividends and interest are paid. Real bargains in yields are not to be had merely for the buying, and to be able to show yields of 4 per cent net in the second full year of a serious depression is at least presumptive proof of sound investment policy. Just why the fire and marine companies show an advantage in investment return, the combined statistics will not allow us to answer without reservations. It is perhaps significant that the proportion of their assets invested in securities is uniformly higher than for the casualty carriers, particularly in stocks. Both in 1930 and 1931, 89 per cent of fire and marine assets were in stocks; only 22 per cent of casualty. Although it is quite true that stocks as a whole are not depression-proof, those owned by insurance companies are conspicuously of the better grade, principally those of banks, public utilities, and insurance companies. They include also many preferred stocks which maintain dividends longest, and are least disturbing to an investment program. Whether or not there is a direct connection between greater stock holdings and higher investment return cannot of course be shown without more intensive analysis.

But there is the other side of investment experience that must be ascertained in order to gain a rounded picture. It is found in the figures showing net profit and loss on investments. Assets during the year have been sold for more or less than their book value, book values themselves may have been written up or down. The company indeed may be losing on assets at the same time it is gaining on income. To give an idea of their relations to

each other we show figures for net underwriting gain or loss in surplus, and for investment gain or loss in surplus. Both are expressed as per cents of admitted assets:

	Fire and Marine (% of admitted assets)		Casualty	
	<i>Underwriting</i>	<i>Investment</i>	<i>Underwriting</i>	<i>Investment</i>
1928	+.032	+.069	+.015	+.043
1929	+.033	+.016	-.009	+.025
1930	+.021	-.051	-.021	-.0068
1931	+.080	-.100	-.086	-.033

While it is evident that the investment results for the casualty companies are not as serious as for fire and marine, the former for the last three years have had no underwriting gains on which to fall back. Instead underwriting has been an important source of loss. While the fire and marine companies show a 10 per cent investment loss in 1931, an underwriting gain of 8 per cent brings total net operating results to a 7 per cent loss on assets; the casualty companies with far better investment results have a total operating loss of practically the same amount. Investments for casualty companies thus present a problem just as serious as for fire and marine companies, although by themselves they have been much more favorable.

The following table indicates policyholders' surplus per dollar of liability. These figures differ from those for surplus only principally for the stock carriers, though a few mutuals have a guaranty capital. The effect of adding capital stock to surplus of course is uniformly to raise the level of safety, but naturally not to change the trend. Comparison of the trends in policyholders' surplus and surplus alone intimates that the major burden of the depression has to date been borne by policyholders through surplus reduction.

	DOLLARS OF POLICYHOLDERS' SURPLUS PER DOLLAR OF LIABILITIES					
	Fire and Marine			<i>All</i>	Casualty*	
	<i>All</i>	<i>Stock</i>	<i>Mutual</i>		<i>Stock</i>	<i>Mutual</i>
1928	\$1.05	\$1.02	\$1.34	\$.53	\$.56	\$.30
1929	1.15	1.14	1.33	.52	.55	.28
1930	1.11	1.09	1.24	.47	.47	.28
1931	.75	.73	1.01	.33	.33	.28

* Excluding life companies whose capital and surplus is at joint risk of life and accident business.

From these elementary facts and comments it would be quite possible to create a horrible spectre of instability and fear. Defective as are the figures as far as particular causes are concerned, the financial results of the last years on these insurance companies, particularly of 1930 and 1931, are all too evident and quite beyond dispute. Nevertheless in sober judgment it appears to this commentator that there is no reason forthwith to predict the end of the economic system or of this particular part of it. Any institution which has managed to keep up its admitted assets to within 4 per cent of its 1928 level as the fire and marine companies have, and even to raise them as have the casualty companies, is not yet doomed. The New York Stock Exchange bond average in the four-year period 1928-31 declined 25

per cent, its stock average by nearly 75; yet the number of casualty and fire company failures has been relatively small and not one policyholder has lost a cent of money. The situation is serious, it is critical, but one should not yet call it desperate. Drastic as their experience has been, the record of the property and liability carriers is pre-eminently one, not of weakness, but of unexpected and admirable financial strength.

F. E. WOLFE.—In examining the underwriting experience of fire and casualty companies the New York Insurance Reports indicate the following:

Stock fire insurance companies showed losses respectively in 1930 and 1931 of 2.2 per cent and 4.5 per cent only if figured in relation to premiums written; but if taken on the sound basis of premiums earned, for appraising final results of a particular year, these companies really made underwriting gains in 1930 of 2 per cent and in 1931 of 5.1 per cent.

Casualty companies experienced losses in 1930 of above 6 per cent and in 1931 of 4 per cent of earned premiums; but averaged over the last five years their losses approximated 0.8 per cent.

Surety and fidelity lines were most unprofitable and had losses of 17.1 per cent in 1930 and 28.4 per cent in 1931 in relation to premiums earned.

The fluctuations in the value of insurance stocks show that the 1932 low point of twenty New York City banks was 9.1 per cent of their 1929 high, while that of fire insurance companies was 16.2 per cent and of casualty and surety insurance companies of 8 per cent. This 16.2 per cent compared with 7.5 per cent in the case of railroad stocks and 16 per cent in case of utilities. The December 14 value of fire insurance stocks was 30 per cent of its 1929 high, while the bank stocks were only 14 per cent, and utilities stocks were 25 per cent, and the other groups were lower.

Insurance in all branches of the business, by the tests of (a) stock security valuation and (b) of the number and amount of loans from the Reconstruction Finance Corporation, has so far in the depression maintained in a remarkably acceptable manner its essential quality of dependability. In meeting these tests its record surpasses other leading types of business.

C. L. PARRY.—Those who reason that a lower price level will greatly reduce the amount of life insurance in force should consider the following:

The American population is still under-insured (less than \$900 per capita). That amount obviously cannot be considered adequate protection. Furthermore, only about five to six cents out of each dollar of national income has been spent in any recent year for the purchase of life insurance. There still exists great room for expansion in insurance sales.

The growing interest of the American population in old-age security, and the manner in which life insurance companies are meeting that need through annuity provisions, etc., will undoubtedly serve to direct the attention of more individuals, as time passes, to the value of life insurance as life insurance. Thus the sale of annuities and of the various forms of regular life insurance which contain a savings element may be expected to bolster the volume of sales, premium income, and amount in force.

Dr. McCahan's data on policy loans during the last three years—\$2,048,678,000 in cash and \$412,280,000 in premium loans—are for com-

panies holding 86.4 per cent of the assets of all legal reserve companies; the figures would be somewhat larger for all companies.

I should like to add to Dr. Bowers' statement that railroad bonds have become of lesser importance in the life insurance portfolio since 1925; the decline in this type of investment began in 1906.

Low price levels may cause some of the experience of the seventies and eighties to be repeated. Failures among life companies are not likely to become so widespread because they are much older now.

In conclusion it seems to me that if one is disposed to be judicial minded, he cannot arrive at any other conclusion than that life insurance has given an extremely good account of itself during the depression. Less than .5 per cent of total United States legal-reserve life insurance company assets are now involved in any way because of company failure or receivership; probably a less percentage of total legal-reserve life insurance in force has become so affected, after three years of unprecedented business conditions.

ON RESERVES FOR UNEMPLOYMENT INSURANCE

THEORETICAL ASPECTS OF UNEMPLOYMENT RESERVES

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Unemployment problem is so pressing and our understanding of it so imperfect that discussion and experimentation must go hand in hand. Economic theory alone can never lead to settled conclusions on questions of economic policy, and in the present state of the economic knowledge of unemployment and of business cycles much of the analysis is still fragmentary and tentative. Imperfect though it is, theoretical analysis can anticipate some of the results of experiments. We are reduced to a simple trial and error basis. We can see lines along which experiments are well worth while and other lines along which experiments, however noble in purpose, are not worth undertaking. It is for this reason that this is so, for we cannot afford free experimentation. An uncontrolled experiment always has after-effects which cannot be eliminated by repeal of a statute and which may sometimes turn out to be injurious diseases which cannot be checked once they have had a good start. American students find much to criticize in European systems of unemployment reserves, but the European states, far from being able to defend their present systems, have great difficulty in checking abuses. American students of unemployment reserves are particularly interested in two problems: maximizing unemployment prevention and avoiding a mixture of unemployment reserves and poor relief. The present discussion deals with the theoretical aspects of these prob-

The topic to be discussed first is the incidence of employers' contributions to unemployment reserves. Are they built up even in part by levies upon employers, who really pays the bill? Do the employers assume the burden, or do they shift it forward to the consumers or backward to the workers? The burden rests eventually upon the wage earners. The employers' contributions are roughly proportionate to his pay roll or the size of his work-force. They amount to an increase in his labor costs. So long as wage rates are not reduced, the employer will seek to economize on this relatively dear factor of production and save labor to the utmost. Employers' contributions are unlike a commodity tax, for a tax furnishes an incentive to substitute one method of production for another. In the normal case, the employers cannot, either singly or in concert, reduce the price without encountering some loss in volume, without reducing the amount of equipment and some labor to idleness. To regain the volume,

to put the equipment and labor back to work, costs must be reduced, and the pressure will be concentrated upon the labor costs. Wage rates will be cut.

Almost all economists who have examined the question of the shifting of employers' contributions have reached the same conclusion. It is, of course, subject to many qualifications. In periods when the trend of prices is upward and wage rates lag behind prices, employers' contributions may not result in an actual reduction of wages. At the present time, we are in no such period. Contributions of any significant amount to unemployment reserves cannot now be levied upon employers without adding to the pressure on wage rates. There is a further qualification: the pressure on labor costs may either add to unemployment or decrease wage rates. The existence of unemployment benefits may make it more likely that unemployment will be increased and less likely that wage rates will be cut. Further qualifications may be introduced when other collateral effects of reserves, such as their effect on trade unionism, are brought into the discussion. Time does not permit a more elaborate explanation or justification of the conclusion that employers' contributions are shifted backward to the wage earners. Most of this paper deals with the consequences of this tendency.

Two conclusions of practical importance may be stated at this point. First, employers' contributions do not constitute a burden on industry. They would constitute a burden if the other claims on industry remained intact, but they are nothing but a form of labor compensation. This is true, of course, only in the long run; but institutions like unemployment reserves, which are more than temporary emergency expedients, have to be examined with a long view. Employers' contributions might not be a burden, even if unemployment reserves are on a company or state basis instead of a national basis. There is the possibility that workmen will find a system of partially deferred compensation as acceptable as the existing wage system. Corporations have found systems of deferred compensation—reserves for dividends—more attractive to investors than paying out all profits immediately. If a system of deferred wage payment proved to be as satisfactory, there would be no burden on industry even if the plan was not universal. Second, contributions from employers are to be discussed as political and administrative expedients. The justice of asking workmen to pay for unemployment benefits and the adequacy of their means to do so have nothing to do with this question. If it is considered unjust or impracticable to have the workmen bear the burden, unemployment benefits must come from the public treasury.

In the discussion of the first topic, the problem of incidence, the assumption was made that contributions to unemployment reserves are a real burden to somebody. Actually we should examine the question,

and our second topic is whether unemployment benefits will pay for themselves.

A system of reserves which would maintain both the physique and the morale of the unemployed not only would meet a great human need but also would constitute an important national asset. Such a system would be an advantage to all employers, and particularly to those small employers who could not set up a system for themselves, even if they had the foresight and the financial resources. This advantage to employers would help them to pay higher wages or carry the burden of the system. On the other hand, it is probable that any considerable amount of unemployment would reduce the workmen's productive power, even if they received unemployment benefits. Much of the loss in the workmen's industrial efficiency comes from unemployment itself, whether benefits are paid or not. None the less, if the effects upon the workmen's efficiency were the only considerations, we might conclude that unemployment benefits would pay for themselves to a great extent.

Several economists have expressed the view that the purchasing power made available by unemployment benefits would reduce the severity or duration of business depressions and thus would reduce unemployment. If this were true, the benefits would help, in another way, to pay for themselves. However, inasmuch as economists have been unable to arrive at any adequate explanation of the business cycle in general and of business revival in particular, the effects of this purchasing power may be analyzed only tentatively. Even as tentative analysis this view is unacceptable.

No one will question, of course, that an increased flow of consumers' purchasing power is a phase of business revival. If this is based upon a resumption of business activity and an increase in employment, it will encourage activity in industries producing other than consumers' goods. Benefits from an exhaustible reserve, accompanied by continuing unemployment, can do nothing to stimulate the revival of business confidence.

A second point for criticism is the neglect of the difficult transfer problem. How can an unemployment reserve turn its assets into cash without adding to financial strain and unemployment? A simple transfer of purchasing power from the buyers of the reserve securities will not add to the total. An addition to purchasing power might come through the use of bank credit; but throughout most of a depression bank credit is not available in large quantities. Similar difficulties are encountered, of course, in any other attempt to liquidate assets in a depression; but the magnitude of the task of turning virtually all of a huge unemployment reserve into cash during a major depression makes it a different problem from that encountered by insurance companies or by corporations in keeping up dividends.

A third point for criticism is the effect upon the balance of expenditures for producers' and for consumers' goods. Here a further important consequence of the incidence doctrine comes in. Whether contributions are levied upon employers or upon workmen, the effect is to reduce expenditures on consumers' goods in periods of prosperity. The balance between the two forms of expenditure is thus turned even more toward producers' goods. The effect thus is to increase the disproportion which is a dominant factor in some theories of the business cycle and an important factor in all. In a period of depression, likewise, the benefits increase expenditures on consumers' goods when expenditures on producers' goods are too small to provide much employment.

For all these reasons, then, the view that the purchasing power of unemployment benefits will be an aid in maintaining employment overlooks too many important aspects of the cycle to be acceptable. The difficulties of transferring purchasing power from one period to another are very important. If the human needs were not so insistent, we could call the difficulties insurmountable. They reduce the chance that unemployment benefits will pay for themselves. They are so important that unless great skill is used to meet them they will result in an increase in unemployment and in the costs of a reserve system.

The chance that unemployment benefits will pay for themselves depends, further, upon the conditions for benefit. If the benefits are paid, not only when a workman is unemployed because no work can be found at any price, but also when he has refused a job with a substandard wage, the system combines protection against unemployment and protection against wage reductions. This is the system provided in the Wisconsin Act. Other systems have operated in the same way. In such a system there are implicit the views that unemployment is not reduced—is perhaps even increased—by wage reductions or that wage reductions are a greater evil than unemployment. Personally, I find these views entirely unconvincing. I regard wage reductions as the lesser evil and a necessary means to bring about the resumption of employment. Stabilization of wage rates and stabilization of employment are to some extent complementary objectives, but to a larger extent competing objectives. The forces opposing or delaying wage reductions are already strong enough to prevent such a chaos of price and wage reductions that business operations would be impossible. There is no need to add to the already great rigidity of wage rates. In periods and trades where unemployment increases much beyond its minimum amount, maintaining wage rates is not a means to maximize the purchasing power of the wage earners. Less inflexibility would decrease unemployment; more will certainly increase it. In proportion as the modern conscience revolts at the misery of the unemployed, we weaken the principal force driving wage rates down-

ward; and we are bound, in good conscience, to find some other force to prevent the perpetuation of unemployment. Herein lies a principal defect of most unemployment reserves plans, and here is a principal reason for doubting that the reserves will pay for themselves.

It is to be hoped that better reserve systems will do more toward making the reserves pay for themselves. Experience to date does not warrant taking our hopes for facts; unemployment reserves are best considered as devices to spread consuming power through time and not as "productive consumption," a device to eat our cake and have it too.

The belief that contributions from employers will aid materially in reducing unemployment is an argument for unemployment reserves which has been so important in American discussions that it deserves treatment as a special topic. This belief underlies the Wisconsin Act, the first state reserve plan to be adopted in this country. The belief rests upon the diagnosis that employers lack sufficient incentive to stabilize employment and upon the view that contributions from employers will provide the necessary incentive. I have not been converted to this belief.

The diagnosis that unemployment persists because business leaders have no incentive to prevent it is radically defective. Idle labor means idle equipment. Idle labor means less purchasing power. A period of unemployment is a period of business losses and business failures. Entirely apart from any nice pecuniary calculations, the employer, as a human being, would prefer to give a man a job rather than to take one away. The causes for unemployment are to be found, not in inadequate incentives, but in inadequate ability, foresight, knowledge, and control. Most of the causes of serious unemployment lie beyond the immediate control of the individual employer; they are external to the individual establishment. They are economic, social, and political forces. Of course, business men have a large share in the responsibility of all of us as citizens. On this point, it does not become economists to cast the first stone—they have not agreed upon any clear-cut, straightforward program to prevent unemployment. The failures of economists, however, are not attributable to inadequate incentives but to the enormous complexity of the problem. The emphasis on the inadequate incentives of the individual employer to eliminate unemployment is unwarranted.

Even if we make the contrary-to-fact assumption that existing incentives are not sufficient, how will employers' contributions to an unemployment reserve add to an employer's incentives? It would first be necessary to have the employer contribute solely for benefits to his own workmen whom he had let go because of lack of work. This apparently is done in the Wisconsin Act. When the liability is so limited, an employee who quits voluntarily to take a job with another employer loses all claims

on the reserve which he has indirectly built up from his own wages. If the individual employer could do much to prevent unemployment, this restriction on the right to quit might not be too high a price to pay. As the situation stands, it is an intolerable burden.

The proposal to make the support of the wage earners, whether employed or not, a fixed charge on industry is attractive only upon most superficial consideration. Fixed charges are of two sorts. In the first, financial sense, a fixed charge is relatively secure. Some of the capitalists are in a relatively secure position only because other capitalists are more exposed. In a similar manner, some of the wage earners may be put in a relatively secure position if the burden of employment fluctuations is concentrated upon men not admitted to the ranks of "regular" employees. This is the effect of some guaranteed work plans. All workmen or all capitalists cannot be in a relatively secure position. In the second, cost-accounting sense, a fixed charge is a fixed and specialized form of capital and cannot escape when the demand for its services declines. Immobility is its essential characteristic. Workmen will not gain by being made more dependent upon the sales of a particular establishment than they are already.

The possibility that the employer's contributions will be an additional stimulus to him to reduce unemployment is practically eliminated by the shifting of the burden to the wage earners. If the contributions are precisely balanced by a reduction of wage rates, the employer has no reason to change his practice of hiring and firing. Some small incentive could be added if the employer were fined a large lump sum every time he let a man go. This would make the employer unwilling to take a man on unless he expected to give him work for a considerable period. It would amount to a prohibition of casual labor. When, however, the employer's contributions and liabilities are proportionate to the length of employment, there is no prohibition of casual employment. The Wisconsin Act provides that the liabilities shall be proportionate to the length of employment and so gives no significant incentive to stabilize. Any plan at best could help toward evening out the minor irregularities of employment. No plan could help in the most serious forms of unemployment, technological and cyclical. An understanding of the incidence problem is a death blow to the faith in additional incentives.

An understanding of the incidence problem is an important aid, further, in explaining the ineradicable instability of unemployment reserves based upon the "insurance" or pooling principle. If unemployment were an insurable risk, a workman would pay directly or indirectly the cost of the risk of unemployment to a homogeneous class of men whose chances were no better or no worse than his own. Insurance depends upon the grouping of like risks and upon appropriate differences in premiums and

enefits between several classes. The average risk has to be for a homogeneous class. An average risk of unemployment calculated for a heterogeneous class of workmen in highly secure and highly insecure positions is no basis for insurance. Moreover, an average calculated upon past experience is no help unless the experience warrants our projecting the average into the future. This is not the case. The British and the German miners did not expect any such unemployment as that existing in recent years; and no one foresaw, five years ago, the problems we are now facing. The average percentage of unemployment due to minor regularities can be calculated, but this type of unemployment has little effect upon superior workmen. Cyclical unemployment and technological unemployment, which hit good and bad alike, are incalculable. Unemployment is no more insurable than business failure.

A pooled reserve, whether on a geographical, trade, industry, or individual establishment basis, lumps together good and bad risks. Under such a plan, the less exposed workman pays an excess and the more exposed workman receives an excess. The more exposed workman receives a benefit which has been paid for in part by himself and in part by other workmen. In other words, his benefit includes some relief. The element of relief in the benefits paid from the unemployment reserve is thus not dependent upon grants from the public treasury or upon benefits extended beyond the contractual limits but is inherent in the pooling basis. The charitable character may be disguised, but it is evident in the departure from the *quid pro quo* basis.

When, and if, the less exposed workmen penetrate the disguise, they may well ask why they are compelled to pay a special tax for unemployment relief. If they are bound to the unemployed by a strong sentiment of solidarity, they may be entirely willing to pay the tax. Such a sentiment may be found in some trade union and company plans. But the sentiment of solidarity is weakened whenever there is considerable shifting in and out of the group. The instability of industry thus works against effective solidarity.

Moreover, the instability of industry makes a definition of membership in the group uncertain. Whether eligibility for benefits is defined in terms of length of employment, duration of unemployment, or ratio of benefits to contributions, the same definition of the eligible group will include, in good times, those with slight claims to membership and will exclude, in bad times, those with strong claims to membership. Suppose, for example, that eligibility is limited to those who had four months of employment in the preceding year. This would include a very large number in a period of prosperity and might exclude, in a period of depression, workmen who had spent most of their lives in the industry. When the group is ill defined, solidarity is weakened. The weakened solidarity

which is inherent in a pooled reserve in an unstable world will result in demands that the public treasury support the unemployed through other taxes or will result in a low level of contributions and hence inadequate benefits.

If unemployment reserves are to eliminate all traces of relief, the only possible basis is that of deposits or savings. If an unemployed wage earner could draw only the amount deposited in his individual account, the individualist *quid pro quo* principle would be adhered to strictly. Individualists, at least, would probably be willing to pay higher contributions. The same system could well be used to build up a fund for retirement and old age. The rigidity of wage rates—which is a principal obstacle to the reduction of unemployment—might not be increased when the workman realized that he and no one else was paying his unemployment benefits, that he was drawing on his own reserves. If the rate of contribution was raised to include provision for old age, the larger income in bad times would render the problem of liquidating assets to obtain cash much less acute. The deposit or savings basis for unemployment and old age benefits is simply an extension of the method of providing for those contingencies which is already practiced by both wage earners and investors.

Such a system of deposits or savings obviously would not provide for all the unemployed for whom, on economic and other grounds, something better than existing methods of public and private aid is desired. This is true also of a reserve system on the pooled or insurance basis. Under either system, workmen who have exhausted their claims to benefits cannot be classed with the unemployable or chronically poor. Mrs. Sidney Webb traces many of the difficulties of the British system, particularly the overload of additional relief, to the failure to provide a second line of defense behind the insurance system. The British public had been warned of this necessity in the report of the Poor Law Commission before the original act was adopted. The American public needs the same warning now. All provision for the unemployed cannot come from a system of reserves. Any system of reserves, moreover, will be of little aid in solving the major problem of prevention.

THE ECONOMICS OF UNEMPLOYMENT RELIEF

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Professor Meriam has given reasons for believing that the provision of unemployment reserves will do little to stabilize industry. The reasons he gives, however, lead also to the conclusion that unemployment is likely to be a recurrent evil, partly because of our imperfect knowledge of economic sequences, and partly because of the prevalent unwillingness to accept the sacrifices which a far-reaching stabilization policy would involve. Provision for those whose income has ceased because of unemployment will constitute a major problem of practical economics for many years to come. I propose, therefore, in this paper to accept that fact as basic and to discuss the economic considerations which must be kept in view in providing relief for the unemployed, and to analyze, by reference to these considerations, proposals for the establishment of unemployment reserves or insurance funds.

Current controversy reflects at least four prevailing views concerning the requirements of a system of unemployment relief. In the first place, it is very generally held that the scheme should be designed to reduce the volume of unemployment. In so far as this requirement implies that the relief system should be used as a method of introducing order into the labor market by providing for the registration of claimants to benefit at public offices, at which also information concerning jobs is centralized, there can be little disagreement. Experience shows that public unemployment offices have not been very effective in the absence of positive inducements to report to them, but also that such offices can conveniently check the genuineness of claims for unemployment relief, in view of their centralized knowledge of both offers of work and demands for labor. Obviously, however, enforced attendance at employment offices cannot create jobs. It can merely enable the unemployed to find existing jobs more quickly, and can facilitate the collection of essential statistics without which no rational attack on the problem of unemployment is conceivable.

The demand that the cost of unemployment relief should be distributed in such a manner as to force employers to stabilize their demand for labor is more far-reaching, but since it has been discussed at considerable length by Professor Meriam, I propose to do no more than express my general agreement with the view that the possibilities in this direction have undoubtedly been overestimated. The amount of unemployment that is within the control of individual employers or even industries is less than is often assumed, and until the incidence of contributions required from employers has been more clearly traced, the extent

to which such contributions stimulate reorganization rather than efforts to shift the burden to workers, consumers, and landlords must remain in doubt. It is undeniable, however, that some pressure can be successfully applied.

In the third place it is held that unemployment relief should be used to eliminate unemployment by transferring purchasing power from good to bad times. This claim appears in the form of proposals that expenditure on public works should be controlled to compensate changes in the private demand for labor, and less frequently, that reserve or insurance funds should be accumulated over a period of time and distributed in emergencies. Concerning such proposals, I wish to add but one or two footnotes to Professor Meriam's remarks. Laying aside reserves of commodities at one time which can be used later to supply the needs of the unemployed without depriving other members of the community of resources at that future date, is, of course, possible only if a central authority buys actual goods and puts them in storage, or if it invests current unemployment reserves outside the given economic unit and is able to realize them in periods of unemployment without disturbing the home economy or depressing the investment market.

It can be conceded at once that the accumulation of internal investment reserves in prosperity and their disbursement in times of serious depression necessitates realization of property at an unfavorable time. Even so, Drs. Shoup and Shere have recently shown that apart from exceptional circumstances, a state as a seller might profit financially from the relative increase in bond prices during trade depressions.¹ But there is no reason why reserves should be treated in the period of accumulation as ordinary savings and allowed to stimulate production. It is undoubtedly possible to accumulate purchasing power in periods of good trade in the form of an earmarked reserve of cash or deposits and to provide for its automatic disbursement when unemployment appears. Such a policy would avoid the undue stimulation of productive activity in the upswing of a cycle, such as Professor Meriam fears. Indeed, it would normally retard business expansion in times of prosperity, since it would slow down the circulation of money in the widest sense, unless the financial authorities decreased their reserve requirements in a corresponding degree. But it is more probable that the presence of a growing earmarked reserve, liable, if needed at all, to be withdrawn rather rapidly, would lead in a rational banking system to a cautious policy and thus to some restriction of expansion. The disbursement of the fund would, other things being equal, have an inflationary effect. Most attempts at inflation tend to be ineffective in depressions, because purchasing power is

¹ Memorandum No. 11, *N.Y. State Commission for the Revision of the Tax Law*, p. 6.

red to producers, who at such times are influenced less by lower interest rates than by an assurance of markets, or to bankers, who use new loans for strengthening their reserve position rather than for oiling the wheels of trade. But the distribution direct to the unemployed of the funds accumulated for that purpose will more effectively stimulate production, since it makes purchasing power available to those who by definition will be certain to spend it. Actually, however, it is probable that this inflationary effect would be neutralized by the already existing restriction of lending by banks and by the unwillingness of business men to borrow from banks, which constitutes one of the phenomena of depression. Given declining business activity, such a payment to the unemployed tends to bring about, as compared with the period immediately prior to the depression, a transference of purchasing power from buyers of producers' goods as a group to consumers. Whether or not this transfer is desirable depends, of course, upon the causes of the trade cycle. I suggest that present knowledge gives no basis for condemning it.

Even if the distribution of the earmarked reserve more than balances the contraction of the activities of banks and business men in the investment field and thus involves some measure of inflation, the stimulation of consumption is subject to obvious safeguards. On the one hand the amount that is to be distributed is narrowly limited by the low level of unemployment represented by the amount of the benefit, and, on the other hand, the duration of the distribution is limited by the fact that as unemployment diminishes, the inflationary tendency automatically ceases to operate. The provision of such funds, therefore, may be claimed to be a safer method of inflation than the facilitation of advances to producers, for the latter involves a real danger that prices will continue to increase long after available resources are being worked to capacity.

The real question, therefore, is not whether assured payments to the unemployed can be made from reserves without reducing the funds available for production in depression or unduly increasing them in prosperity. There are, rather, two questions: firstly, whether it is desirable from time to time to change the balance of purchasing power in favor of consumers' expenditure, and secondly, whether the best means of doing so is to issue fiat money in times of depression or to provide during prosperity for an orderly contraction of the circulating medium in the worst sense, by requiring regular contributions from industry, the fund thus accumulated being used in times of bad trade to pay weekly benefits.

The answer to the first question turns, as I have said, upon our theory of the causes of the trade cycle. Later in this paper I will suggest a tentative answer to the second question.

The second frequently expressed requirement of an unemployment relief system maintains that it should provide some return to society for its

expenditure. Raw materials and capital should be provided so that the unemployed may make some return for the income they receive. This argument underlies proposals for the development of public or private works in time of depression; it finds expression also in proposals such as that of Mr. G. D. H. Cole that the unemployed should be organized in a labor army and set to work upon tasks of general social benefit. Finally, it underlies in part the proposals put forward in Great Britain originally by Lord Melchett and developed on a spectacular scale in Germany in the recent measures of the Von Papen government, that unemployment relief should be paid not to the unemployed but to employers, to induce them to take on workers who would otherwise have been regarded as submarginal.

The argument is seductive, but reflection suggests both theoretical and practical limitations. With the obvious practical economic difficulties of subsidizing the wages paid by private employers I do not propose to deal. I desire rather to examine the implication that apart from these difficulties the economic advantageousness of such a scheme is incontestable. In the first place, setting the unemployed to work in this way necessarily involves an expenditure considerably greater than would be required merely to maintain them. Experience indicates that the payment to the workers relieved must approximate more closely to the current rates of wages than must bare relief grants, if only because persons at work need more food and clothing than those who are idle. In any case, additional expenditure to provide capital and materials with which to carry on the work is necessary. The economic advantageousness of this type of attack on the unemployment situation turns, therefore, upon a choice not between a given expenditure which will yield something and the same expenditure yielding nothing, but between a given expenditure which will yield nothing and a somewhat larger expenditure which will yield some economic return. In making this choice, the satisfactions which could have been obtained from the expenditure of the additional fund in the course of ordinary business must be compared with those obtainable by utilizing the labor of the otherwise unemployed.

In other words, a problem of comparing marginal utilities arises, and it is far from certain that the worthwhileness of expenditure on productive relief will be obvious. In so far as the unemployed can be put to work which involves the utilization of machinery and resources otherwise remaining idle, or can in this way be obtained at less than the current rates paid for labor, the economic return obtainable from the stimulation of this kind of employment might be expected to compare favorably with that obtained from stimulating employment through the normal channels of consumer demand. Unfortunately, however, the benefits available from this source are less than they seem. Firstly, there is a

tendency everywhere observable for expenditure of this kind to be directed toward the employment of as large a number of workers as possible and therefore to the stimulation of employments that involve a relatively small amount of capital. Secondly, as already pointed out, physical necessity plus pressure from labor groups has tended to reduce the differential between the remuneration paid for this relief work and that for work in unsubsidized employment.

Moreover, the choice between allocating a given sum to maintenance alone or a larger sum to maintenance that will yield some economic return cannot be made without regard for the kind of product yielded by subsidized employment. In the absence of profitability as a criterion for determining the kind of work to be undertaken, safeguards have in fact been established which have severely restricted the type of work subsidized. Specifically, subsidies have been restricted to production shown to be additional to what would occur, and also to be socially desirable. The experience of Germany has illustrated very clearly the practical difficulties of distinguishing work that is additional to what would have been normally undertaken, and there as elsewhere there has been a tendency to limit subsidized employment to works which would not be economically remunerative to any individual employer or local authority but which might benefit the community as a whole over a long period of time.

Thus the net advantage of allocating additional funds to relief in order to obtain something instead of nothing from unemployed persons will then turn upon the source from which these other funds come. If they are raised out of general taxation collected from those who would otherwise have spent those funds, the worthwhileness of this stimulation involves a decision that present consumption shall be restricted in order to secure productive works bringing in a return many years hence. The poorer the community, the less desirable is such redistribution of resources likely to appear. If, however, the funds are raised by taxation from those who would otherwise have saved, or is financed by the floating of loans, the net economic desirability depends upon the extent to which these funds would otherwise have been used to stimulate production through the normal channels of industry. Only where they would otherwise have remained as idle deposits does the decision to use them for productive unemployment relief avoid the choice between present and future satisfactions to which I have already referred.

It is important, however, to note that although the economic advantage of productive unemployment relief may be less than appears at first sight, it may nevertheless be desirable because of its effect upon the morale of the workers. The important question is, then, whether the community can afford to pay this price for maintaining morale and

whether it is possible by this means to care for all the unemployed. The practical difficulties have been sufficient in almost all the countries in which this experiment has been tried to limit additional payments to relatively short periods of time and to a small proportion of unemployed persons. As unemployment has increased, the willingness to incur this additional expenditure has been less and less in evidence.

The third requirement frequently made of unemployment relief systems is that they shall not aggravate the existing situation through their effect upon workers, employers, or the government. This requirement underlies the common objection to unemployment relief systems that they tend to maintain wages and, therefore, to postpone essential economic readjustments. This view has been prominently associated with the name of M. Rueff, who has endeavored to establish a statistical relationship of this kind in regard to the British situation. For various reasons, largely of a technical nature and which I have set out elsewhere,² I do not think that M. Rueff has established his argument.

The fact remains, however, that there is an undoubted relationship between wages and unemployment relief wherever loss of income is relied upon to bring about economic readjustment. If workers are persuaded by loss of income to offer to do the kinds of work in demand at the price which society is prepared to pay, any relaxation of that pressure (such as would result from the guarantee of a fixed unemployment payment) must postpone economic revaluation. A guarantee of a fixed relief payment for a defined period must thus be regarded as an expression of the willingness of a society to allow the displaced worker a breathing space before forcing him to make serious economic readjustments.

Many economic reasons can be urged in favor of this guarantee. It is obviously wasteful to have too high a degree of adaptability on the part of workers. Changes in demand may be merely temporary and it is unnecessary for employees to acquire other skills or to force their way into other occupations, if the demand for services of the type they have formerly performed is likely to revive within a relatively short period. It has long been observed that the opposition of organized workers to the introduction of new devices and their attitude to increased production has been connected with their fear of loss of income due to unemployment. More recently Mr. Matthewson has shown in an admirable study³

² *Labour Magazine*, August, 1931, p. 182; cf. also F. Brown in *New Statesman and Nation*, June 20, 1931. Apart from serious statistical flaws, the most important gap in Rueff's argument is his failure to demonstrate that it is the unemployment insurance system which has been responsible for the remarkable post-war stability of wage rates in Great Britain. I suspect that the marked lag between movements in the general level of retail and wholesale prices in a country where wages are very largely regulated by collective bargaining or by state-enforced wages boards is more responsible for this rigidity of wage rates than is generally supposed.

³ S. B. Matthewson, *Restriction of Output*, *passim*.

that fear of unemployment leads also to restriction of output by unorganized workers. A society such as ours which encourages changes in productive technique and sets a high value on the freedom of the consumer to change his mind cannot afford, in the interests of adaptability of labor supply, to concentrate the costs of innovation upon displaced workers and thereby obstruct change.

Finally, our knowledge of the relationship between sustained consumption and regularity of production, especially at the beginning of a trade depression, is not yet sufficiently definite to permit a positive assertion that a revision of all existing money contracts, involving *inter alia* reductions of wages, is an essential prerequisite to the restoration of economic balance. The risk of maintaining wages for a limited time at the beginning of a depression when the basic reasons for maladjustments are obscure may be worth running. But it should be noted that no society can relinquish the right periodically to revise the duration of the period for which it will run that risk in the light of more exact knowledge of economic relationships, changes in the general level of prices, and changes in the real economic income of the community.

The claim that an assured unemployment payment discourages mobility as between occupations, when it is not a special case of the theory we have just discussed, has validity only when unemployment relief is provided for some and not all of the occupations in a given economic area. It is undeniable that in Great Britain the exclusion of agricultural work and domestic service from the provision of the unemployment insurance system has tended to discourage entry into these occupations where it has not positively encouraged exit from them. It is in other words an argument against a partial unemployment relief system.

Unemployment relief may, it is also said, aggravate the existing situation through its effect upon employers. Firstly, it is argued that the knowledge that their workers will be cared for encourages carelessness in discharge policy. It is, of course, possible that the knowledge that discharge may mean starvation to their workers may induce employers to make special efforts to postpone discharge and to ration work among their existing staff. This argument is most plausible where there is a close personal relationship between employers and workers, but it is doubtful whether even then it has wide validity. Moreover, some methods of raising funds for unemployment relief offer a safeguard against this danger by a provision for the levying of increased contributions from industries where gross carelessness in employment policy is demonstrated.

A second and more serious charge is that unemployment relief financed by contributions from industry defers revival if it does not actually aggravate depression. The correctness of this argument depends upon

the cause of unemployment. Where unemployment in some sections of industry is attributable to a change in taste or knowledge which redounds to the advantage of other sections, there is a clear economic case for charging the cost of unemployment in the former against the latter; the cost of transferring workers from the depressed industry and maintaining them during transference is part of the final cost of the new product or process. Assessment against the beneficiary industries insures a closer approximation to the economic ideal that so far as possible selling prices should reflect all the costs involved in the production of a commodity.

But where unemployment is more general or assumes the catastrophic proportions with which we have recently become familiar, it has been held by such authorities as Mr. Keynes⁴ that raising funds from industry depresses enterprise more than if a similar sum were collected from general taxation. Here, too, any certain answer awaits the final development of the theory of incidence, but even if it were known that the incidence of industrial contributions fell directly or ultimately upon the employer, the effect on enterprise is still in doubt. It is true that competition from producers not subject to the charge might have serious consequences, although on account of the protective tariff this factor necessarily assumes negligible importance in this country as compared, for example, with Great Britain. But in the last resort, the answer depends upon our theory of the elasticity of demand for income in terms of effort. Once again, I suggest that current economic theory supplies no certain answer. Finally, it should be noted that the claim has validity only if certain types of taxation are adopted, and in this country it is by no means obvious that the attempt to raise at least part of the funds by direct contributions from industry would depress enterprise more than the collection of a similar sum by the traditional indirect methods of taxation, in which the sales tax appears likely to play a prominent rôle.

In the third place, it is claimed, some forms of unemployment relief aggravate depression because they have an adverse effect upon government policy. This view has been strongly put by Sir William Beveridge, who has suggested that what he regards as the unlimited benefit has paralyzed governmental attempts to improve the economic situation in Great Britain.⁵ It is, of course, conceivable that payment of practically unconditional relief from general taxation might diminish the pressure exerted upon the government by a desperate incomeless electorate to initiate economic reorganization, but the practical validity of the argument

⁴ In the *Political Quarterly*, January, 1930, p. 119, ff.

⁵ W. H. Beveridge, *Unemployment* (1930), p. 409; cf. also evidence of Sir William before the Unemployment Insurance Commission.

is far from clear. No state has made more positive efforts to create employment than Germany, where there also exists the most comprehensive system of unemployment relief; and the absence of adequate and orderly provision for relieving the unemployed in the United States cannot be said to have justified itself by inducing great measures of constructive economic statesmanship. Indeed, it seems more reasonable to expect that when the costs are concentrated and known, as occurs when relief is financed through general taxation or industrially supplied reserves, the cost of continuous unemployment is more likely to stimulate demands for economic reconstruction than where the burden is incapable of measurement because diffused among the unemployed, their friends and relatives, charitable individuals, landlords, and storekeepers incurring bad debts.

The fourth requirement concerning the characteristics of an ideal unemployment relief system holds that it should at least protect those footing the bill by setting a limit to their liability. This view expresses itself in the demand that proposed insurance or reserve schemes should be financially solvent, and in the constant preoccupation with the financial aspects of unemployment relief in all countries. Efforts have been made to limit the cost of relief by various devices. Care is taken to see that payment is made only to those genuinely unemployed and limits are placed upon the duration and amount of benefit, and these are sometimes subject to revision as the unemployment relief fund shrinks. It is important to note, however, that although the expenditure to be incurred in any period in respect of any individual worker can be limited, it is impossible to limit the total liability for relief expenditure. Restriction of the duration of benefit limits the total liability only when the turnover of personnel in the unemployed class can be accurately estimated and remains unchanged. Furthermore, limitation of total liability requires foreknowledge of the total number of persons qualifying for and claiming benefit, and experience has revealed the difficulty of making such forecasts. Moreover, financial burden is significant only in relation to the total available income against which it is assessed. Circumstances which bring about a marked change in the proportion of claimants to potential payers or a decline in the general level of money incomes will change the real burden of any given total monetary liability for unemployment relief. Finally, it must again be emphasized that the solvency of insurance or relief funds can be attained and the interests of contributors (through taxation or otherwise) protected, only at the cost of failure to provide for all cases of need. In other words, unless incomeless persons are to be denied consumable goods, safeguards merely transfer the cost of maintenance from one fund to another. In both England since 1931 and Germany for a much longer period, the safeguarded insurance funds have come to provide for a diminishing propor-

tion of the total numbers of the unemployed. In England, the insurance system now meets the needs of less than 50 per cent of all unemployed persons.⁶ In Germany the corresponding proportion in October, 1932, was 11.4 per cent.⁷

Thus of the four characteristics commonly demanded in an ideal unemployment relief system, two—the claim that it should eliminate unemployment, and that it should give the contributors something for their money—prove on analysis to be less economically seductive than appeared at first sight. Furthermore, all known schemes which aim at these objectives have been shown by experience to be capable of dealing with little more than the fringe of the relief problem. On the other hand, my analysis suggests that although in some respects expenditure on unemployment relief yields a positive economic return, there is a margin of risk involving an uncompensated economic cost which cannot be avoided and which is only in part represented by a financial burden.

Above all we must realize that there is no single and more or less automatic way in which society can limit its risk and at the same time provide for those who are incomeless through unemployment. Any sound attack upon the problem must accept from the first the fact that there are two problems and not one. One concerns the determination of the cost to be incurred both in terms of measurable money burden and in the broader economic sense. The other concerns the method of financing. These overlap at some points but are in the main distinct.

A solution of the first problem involves the necessity of making periodic judgments concerning the amount of unemployment that the community is prepared to undertake responsibility for, and the duration of the period within which no pressure will be applied to the unemployed to readjust their economic valuations. In making this decision the question of the relationship of the probable total financial cost to the anticipated money income of the community necessarily plays a part, but the more fundamental economic costs of unemployment relief to which attention has already been drawn in this paper must also be taken into account. In any case it is a problem that must be solved by reference to broader criteria than the financial state of any specific industry, reserve, or insurance fund. In the last resort the decision is only partly economic, for the determination to shoulder certain economic costs, when they cannot be shown to involve any economic return, is an ethical decision. But it is obviously economically undesirable to fix once and for all the standard which any society will guarantee and the period for which the guarantee is to run.

From this point of view the attempt to provide adequate relief on the

⁶ *Ministry of Labour Gazette*, December, 1932, pp. 471, 472, and 474.

⁷ *Wirtschaft und Statistik*, I, November, Heft, 1932, p. 672.

principle of insurance with its emphasis upon a fixed benefit conditional upon the payment of defined premiums breaks down, not merely because it is impossible to forecast the total amount of unemployment. Even the attempt to insure over long periods of time for an extremely high potential unemployment relief demand is objectionable, for, since the money amount to be provided and the duration and conditions of benefit can never be decided once and for all, but must vary with economic conditions and the probable causes of the depression at any given time, it is impossible to know many years beforehand what total money sum to provide for and therefore what average yearly contribution to assess. Moreover, unemployment insurance, which aims to provide a certain physical standard of living, differs from life insurance where the contract is only in money terms and where there is no pressure on the insuring agent subsequently to adjust his benefits to changes in the purchasing power of money. Furthermore, the worker who has contributed over several years in the expectation of receiving a defined benefit may well feel a sense of grievance if the actual rate paid in periods of depression amounts to appreciably less than this, when other workers whose claims are settled in different years but who had contributed on the same basis received a higher sum.

And if it be argued that premiums should be changed from year to year in accordance with the change in probable expenditure, then it can be objected that years of heavy unemployment are precisely times when the imposition of additional burdens on industries is likely to have the most disadvantageous effects.

But it is also true that unemployment exhibits certain characteristics in common with risks against which it is possible to insure. In particular it is important to note that any given percentage of unemployment is not distributed equally among all workers. In Great Britain a recent investigation has shown that no less than 85.2 per cent of the persons continuously insured during the 7¼ years between 1928 and 1930 had drawn no benefit at all and another 88 per cent had received benefit for less than 10 per cent of the time, despite an average unemployment rate of 18 per cent, which at times rose as high as 20 per cent.⁸ It follows that the attempt to meet the costs of unemployment relief by providing for a separate fund for each worker against which only he can draw involves an unnecessarily large reduction in current spendable income, since much of this reserve is unlikely to be called upon but is not available for assisting other workers.

The second problem, that of raising the necessary funds, can be solved by reference to no obviously appropriate principles, but must be regarded as an ordinary problem in public finance. Basically, we have to

⁸ *Royal Commission on Unemployment Insurance, Final Report, 1932, p. 78.*

provide funds to meet an expenditure whose maximum within any given period is incapable of exact forecast but whose minimum can be estimated with considerable safety. The funds, like other taxation, must be raised in such a way that their collection will be most certain and likely to cause a minimum of harm, and even, with luck, some positive good.

From this point of view, there is much to be said in favor of raising a proportion of the funds by what is in effect a tax upon industry in the form of contributions from employers and employees, with a provision that the state shall make good any deficit that occurs within a given financial year. In so far as the sum provided by industry was in excess of the requirements of any year it could constitute a reserve fund which would postpone the necessity of imposing an exceptionally heavy direct burden on industry in periods of depression. The general case in favor of providing for some measure of stabilization of public revenue from year to year to meet irregularly recurring expenditure has been ably put by Professor Haig and his associates in recent reports to the New York State Commission for the Revision of Tax Laws, and need not be elaborated here.

But in the second place, if what I have said concerning the stabilizing effects of an earmarked reserve has any validity, this method of providing for at least part of the funds would introduce a factor tending to mitigate the severity of upward and downward movements of trade. Even more directly, the decision to provide some considerable proportion of the funds in this way makes possible the adjustment of the tax to meet the special circumstances of highly seasonal trades and the exertion of pressure on individual industries where management can be shown to be responsible for irregularity. So long as there is any chance that measures of this kind would encourage stabilization, we cannot afford to neglect them.

Finally, the collection of part of the funds from workers makes possible a classification of the unemployed which has both economic and social advantages. We have seen that society cannot afford to make a fixed payment to all incomeless persons for an indefinite period. To confine the right to draw unconditional benefit for the period which society has at any time guaranteed to those who have been shown, by virtue of their past payments of the tax, to be regularly employed persons, and to concentrate the examination into financial circumstances and pressure to revise economic valuations on those who cannot fulfill this qualification or who have been out of work for longer than the period of the guarantee, is perhaps as satisfactory a solution of the essential compromise between the economic interests of society and of the individual as we can hope for. On the one hand, it avoids the costly and inconvenient administrative necessity of undertaking a detailed investi-

tion into the circumstances of every unemployed worker. On the other hand, it permits a considerable proportion of the unemployed, particularly in normal times, to be dealt with in a manner that preserves their self-respect. They receive preferential treatment for the guaranteed period because they have paid a part of the cost.

Only by sharply separating the decision concerning the economic cost that society is prepared to pay in relieving unemployment, from that concerning appropriate methods of raising the funds may we hope on the one hand to avoid fundamentally irrelevant charges of a lack of financial solvency, and on the other to preserve a freedom to adjust the amount and duration of benefit in accordance with the periodically observed economic interests of society, without causing contributors to feel that they have been swindled by a breach of contract or to become superfluous by the receipt of indiscriminate relief.

DISCUSSION

DAVID A. McCABE.—I agree with Professor Meriam and Dr. Burns that the economic effects of the establishment of a system of unemployment reserves, whether pooled or separate, will be found more in the sphere of prevention of unemployment than in that of prevention of unemployment. As for their respective views, I find myself more in accord with Mrs. Burns than with Professor Meriam.

Professor Meriam seems to base his conclusions largely on the assumption that the employer's contributions will be shifted back to the workers in the form of reductions or in the foregoing of advances that would otherwise be made. I understand the a priori reasoning behind that thesis, but I am not convinced of the validity of the general assumption that in our complex economic system the employer's contributions would be recouped from the workers. If the plan were compulsory and universal—not confined to a few particular industries or services. It may be, too, that in some industries wage rates have been so nearly adjusted to seasonality, on a comparative basis, that a compulsory levy of high rates of contribution to provide additional compensation for seasonality would be passed back to the workers in the form of reduced wage rates, in part at least. But I query whether it would be in general that wage rates would be reduced in a measure equal to the employer's contributions. I think we need more confirmation from experience with the workings of the plan before taking that assumption as the basis of our reasoning as to the further effects.

Without accepting Professor Meriam's assumption that the plan will exert no pressure on the employer to stabilize employment, I agree that the preventive effect has been exaggerated in some quarters—for good reasons, no doubt. The argument seems to have little validity in the case of unemployment due to technological changes or to apparent permanent decline in the demand for particular products. The problem is not so much one of prevention in the first instance as of compensation and economic rehabilitation. Indeed, it calls for a different kind of treatment than the provisions of the ordinary reserve or unemployment insurance plan contemplate.

It is in seasonal industries that the argument for putting financial pressure on the employer to stabilize employment would seem to have most weight. Premium rates are high and are not shifted backward on wages in accordance with the hypothesis considered above. But seasonal unemployment is not the kind that is uppermost in the argument for unemployment insurance or unemployment insurance in this country today. In fact, there is no ground for believing that it should be separately dealt with, so as to impede concentration of premiums in a reserve for unemployment in the case of general depression. And even in the case of seasonal industries, the effect of the employer's contributions in the direction of prevention must be balanced against other costs of such varying magnitude that, in its influence cannot be ignored, it cannot be assumed that it will prevail as the controlling factor.

On the question whether "the transfer of purchasing power" from the period of prosperity to the apparent onset of the downward swing would exert a stabilizing effect, I would sharpen one point. How much effect would the release of purchasing power" have if producers are fearful that a reaction in prices and costs is inevitable? Would it have much appreciable effect in keeping up employment in the important group of industries connected with the production of producer's goods? Would it reduce in any important degree the total of unemployment experienced between the beginning and the end of the depression, if the depression is not to be ended without important readjustments? Considering the full run of the depression period, I confess that I do not think we are yet in a position to claim confidently very much for it as a factor of prevention, if recovery must wait upon price readjustments.

Finally, on the question whether the payment of unemployment benefits would not postpone recovery, and so prolong unemployment, by retarding wage reductions, if and when wage reductions are a necessary part of the adjustment demanded, such evidence as we have from experience seems to favor the affirmative. This is not necessarily a condemnation of unemployment reserves or insurance. I am heartily in agreement with Mrs. Burns in her statement that there are ethical questions involved. But I am wondering whether we must postulate that workers will not take wage reductions so long as they have unemployment benefits to fall back upon, even if wage reductions should be a practically necessary condition of increased employment under the economic system prevailing in this country.

Is it not possible that readjustment of wage rates may be considered by wage earners—and their advisers—on its merits as a possible method of increasing employment and earnings, independently of the existence or nonexistence of unemployment reserves? I grant that it is difficult to tell in the early stages of a depression whether it is practicable to count on recovery within a short time without wage reductions. And I am far from saying that precipitate and indiscriminating onslaughts on wage rates are the beginning of wisdom in the economics of combating depression. But I am asking whether we must assume that resistance to wage reductions must necessarily be a concomitant of receipt of unemployment benefits? Cannot unemployment reserves from within industry itself be made a means of subsistence during the period of readjustment, or a part of it? Why must we assume that such readjustment must wait until the reserves are exhausted, leaving the workers largely to other forms of relief until production revives to the new level? I am confident that something can be done to secure in practice a handling of the wage question on a timing basis all its own and therefore quite distinct from the relative degree of exhaustion of the unemployment reserves.

WARREN B. CATLIN.—In the brief time at my disposal, I shall confine myself mainly to Professor Meriam's paper, which I happened to see first, and leave to others the treatment of Dr. Burns' brilliant exposition of the principles of relief.

There are two possible methods of considering and meeting a theoretical

argument. One is to try to drag it down to earth and then to challenge it on the ground of its impracticability. This is a favorite device of our business friends but ought not to be necessary for economists themselves. The other method is to attempt also to soar aloft into the ethereal realms and to carry on the combat in the same element from which it was started. Judging from the arrangement of the program, it is this second form of attack that is expected in this discussion.

The crux of Professor Meriam's argument and the reason why he believes that any scheme of unemployment reserves that rests upon contributions from employers in whole or in part will defeat its own end, create unemployment rather than diminish it, is obviously to be found in the doctrine of "shifting and incidence" to which he referred at the beginning. We shall, therefore, make no progress and enjoy no peace and comfort unless and until that ghost is laid and laid forever. Owing, doubtless, to their respect for the classical unities and to the limitations of time and space, neither of our speakers has undertaken to conduct our wayward and perhaps weary minds through all of the intricacies of this most difficult and often baffling branch of economics which has thus been carried over from the realm of taxation and somewhat ruthlessly applied to unemployment problems.

Professor Meriam is largely content, by way of proof of his assertion, to state that "almost all economists who have examined the question of the shifting of employers' contributions have reached the same conclusion"; that is, that they are ultimately shifted to labor itself and come out of wages. Who are these economists and what are their reasoning processes? In his admirable review of recent literature on unemployment in the *Quarterly Journal* for November, 1931, Professor Meriam also touches rather lightly upon this same problem and in this connection gives high praise to an article by Mr. Dale Yoder of the State University of Iowa in an earlier number of the *Q.J.E.* Tracing that down we find that Mr. Yoder likewise attempts no thorough examination of the circumstances affecting the shifting and incidence of employers' contributions but quotes as his chief authority Professor Harry Gunnison Brown of the University of Missouri in his book on the *Economics of Taxation*.¹

I am not disposed to break lances with any of these gentlemen. Those of us who received our training in the mysteries of the subject of "shifting and incidence" under Professor Seligman may, however, feel justified in questioning whether the matter can be dealt with in any such simple and summary fashion. There are at least ten different factors which affect the ability and the disposition to shift a tax and, presumably, an insurance premium: whether it is large or small; whether it is general or special; whether it rests upon profits and surplus or upon the marginal producer; whether the demand for the commodity is elastic or inelastic; whether it is produced under the law of constant, of increasing, or of decreasing costs, and so on. The profitableness or unprofitableness of the whole discussion is perhaps indicated by the fact that both Professor Brown who is cited by Mr. Yoder,

¹ Dale Yoder, "Some Economic Implications of Unemployment Insurance," *Quarterly Jour. of Economics*, XLV (1930-31), 622-639.

who is in turn commended by Dr. Meriam, and Professor Taussig, whom Professor Brown, in turn, cites as giving qualified approval to his theories of shifting, are none the less strong advocates of a broad program of social insurance which would presumably include that against unemployment.² May we not agree once and for all that social legislation, as its name implies, is passed for the benefit of society and not for any one group; and that, whoever pays for it in the last analysis, it is preferable to chaos and disorder? The strongest argument for some form of unemployment insurance or reserves is that it promises not only to safeguard labor from some of the worst consequences of involuntary idleness but to furnish an orderly substitute for the random and uncertain relief campaigns and proposals with which we are now harassed.

But I do wish before leaving this topic to point out a possible flaw in Professor Meriam's reasoning which is apparently accepted by his fellow conspirators. His assumption and that of Professor Brown is that the insurance premiums concerned are "imposed upon employees not in proportion to output or to sales but according to the number and wages of workers hired" (Brown, p. 168). Initially and superficially this may seem to be true in the case of both workmen's compensation and the unemployment reserves plan, but it does not remain so long. In both cases the basis of premiums or payments soon comes to be, not the number of wage earners or the amount of their wages, but the probabilities of risk in the particular plant or industry, in the one case of accidents and in the other of unemployment. To confine ourselves to unemployment, under the Wisconsin plan, as soon as the employer has paid in a certain sum, say \$75 for each workman, he is not called upon for any more payments until this fund has become depleted through unemployment benefits. It is distinctly a contingent or conditional liability, not a regular tax, and the presumption is that, at least so far as some forms and causes of unemployment are concerned, the employer or a group of associated employers have considerable power to evade or avoid the expense through regularization and greater conservatism in expansion and changes in equipment. The levy held over their heads thus becomes an unmistakable incentive to reform and to win an advantage over competitors.

We have, in fact, always assumed that the close parallelism between the history of the safety movement in American industry and the progress of workmen's compensation legislation—both dating from about 1911—is ample proof of such a preventive effect operating through the merit ratings given by insurance companies. That could hardly be if the entire burden of the payments is shifted back upon the workers.

But Professor Meriam will say that the analogy between workmen's compensation and unemployment reserves, or between accidents and unemploy-

² Professor Brown says (p. 174): "But to say that the burden of the premium paid for workmen's insurance falls ultimately upon wage-earners as such, is not to question the desirability of such insurance. Insurance, as is well known, is a pooling of risks. All bear a little loss in order that none may suffer the extreme loss," etc. Professor Taussig says (vol. II, p. 856): "Obviously it is no objection to an insurance system that the premiums ultimately come from the beneficiaries themselves."

ment, is imperfect and that it is difficult to derive one from the other. It is true that the burden of unemployment is much greater than that of industrial accidents, for even in our most bloody and reckless years we probably do not injure much over 2,000,000 workers, and fortunately a large proportion of these injuries are slight and involve little loss of time, whereas even in normally prosperous years the number of unemployed seldom falls below 1,500,000 day in and day out, and in periods of depression like the present as many as 11,000,000 are estimated to be out of work for months. Furthermore, as has been stated, the control which the individual employer is able to exercise over accidents within his own plant is much greater than his control over many of the causes of unemployment which may be worldwide. The employer is, indeed, the primary risk-taker but he cannot be expected to assume all of this responsibility. Professor Meriam also contends that in so far as the employer does have control and power to prevent irregularity of employment he already has sufficient incentive to use it because his capital is idle as well as labor.

Let it be freely granted that for both unemployment and industrial accidents nothing short of divine wisdom could fairly apportion responsibility. We know, however, that it is divided upon some basis among all the parties concerned in industry. Labor itself cannot shirk all blame for unemployment and its evil effects until it makes the wisest possible choice of occupation and cultivates full versatility; unless it shows proper loyalty and willingness to co-operate with willing employers in making the business efficient and successful; and unless it manifests the spirit of foresight and thrift in the management of its private affairs. We talk a great deal in the labor problem about the need of security. But too much security, as Dr. Meriam has suggested, is just what is not good for most of us. It is for this reason and for the maintenance of a fair measure of self-respect that I should support a plan of unemployment reserves which calls for some direct contributions from employees. We can style it "compulsory saving" if we wish, and certainly it will result in securing more liberal benefit provisions than can now be expected from any system in which all contributions are to come from employers.

It is, however, a case not of the employer paying less but the employee paying more. The employer should if possible be made to see that his employees, depending somewhat on the skill and loyalty which they have shown, have some vested rights in the industry as well as he, and that they should not be turned off at will when they become too old or when some change in process or contraction of business makes their services no longer necessary. If he thinks he needs a reserve army of labor at the gate awaiting his beck and call he should be ready to pay for it whether idle or busy. "They also serve who only stand and wait." I suppose we shall not be able to decide who is responsible for the mania for style and fashion and for the seasonal trades to which it so largely gives rise. It may be due to human nature, especially feminine human nature. The disparity of wealth and income and the conspicuous consumption which it prompts undoubtedly have something to do with it. High pressure salesmanship and advertising,

in turn, bring the responsibility close home to business itself. Style goods usually do bring somewhat higher prices so long as they are in vogue and thus enable the employer to pay somewhat higher wages during the active seasons. But organization is usually necessary to compel him to do so. For this type of unemployment, therefore, prompt payment of benefits is less necessary or the contributions required of employees themselves might be larger.

For cyclical unemployment our whole planless, competitive system is the chief culprit; and we may well despair of anything more than palliatives so long as it continues. But "disordered finance, prostrate commerce, and ruined credit," as Daniel Webster would say, have played their part; and the government, in addition to establishing or at least assisting in the conduct of a well co-ordinated scheme of employment exchanges to bring jobs and idle men together when both exist, can do something to remove the fundamental causes of unemployment by giving us a sounder and more stable credit and currency system and by adopting policies respecting international trade and finance that will promote rather than hinder commerce and the growth of good-will. After the hopeless policy of tinkering and tampering with the unemployment insurance system that has been followed by a succession of British ministries in the past twelve years and the high voltage of disrepute which has been generated by the "dole," I doubt whether any American legislature can be persuaded to adopt a scheme of unemployment insurance that involves payments from our depleted public treasuries. And such direct subsidies are probably not desirable anyhow.

When we come to technological unemployment, however—that new name for an old form—I feel that the employer again has a large measure of responsibility. With regard to this there is not, for a long time, at any rate, that complete identity of interest between capital and labor which Professor Meriam has postulated. Capital may here be more fully and efficiently employed at the same time that a considerable number of workers are displaced and compelled to look for other jobs wherever they may. Here is where a dismissal wage or insurance payment thrown into the scale can perhaps do most to compel the employer to make technological changes with sufficient forethought and deliberation to permit of readjustment and relocation for the victims of progress.

British experience which we are now citing perhaps more often as a terrible example of what not to do rather than as one for imitation, does not, however, according to his own admission, bear out Professor Meriam's dire predictions respecting the depressing effect of unemployment insurance upon wage rates. According to Professor Bowley's figures, real wages per week in Great Britain have increased 17 per cent during the period from 1918 to 1929—a period practically contemporary with the existence of the unemployment insurance system. Professor Clay, and Mr. Rowe in his book on *Wages*, attribute this stabilizing effect in the face of changes in the cost of living to the improved bargaining position given to labor by insurance benefits. We may agree that this stabilization has been carried to excess and that in both American and Great Britain business recovery might have been

hastened if deflation had occurred all along the line at the same time, both prices and wages being more promptly reduced and a new start being made from the new level as soon as everyone became convinced that the bottom had been reached. But it will be difficult to convince labor that the maintenance of wage rates is not desirable even though recovery may be delayed and unemployment prolonged. This arises chiefly from their belief that wage rates are more likely to be flexible downward than they are upward. If there were some guarantee that readjustments would be more automatic and just, as soon as prosperity and higher prices returned, labor would undoubtedly be more amenable to reason in this matter. It involves something of a wrench in one's inner consciousness to be asked to surrender the old argument that unemployment insurance will help to safeguard labor against the wholesale reduction in wages that used to occur during periods of depression.

The logic of some such provision as is here proposed for overcoming the worst consequences of unemployment seems irresistible and might almost be reduced to syllogistic form:

(1) Unemployment is a genuine risk and involves an enormous waste which ought to be prevented so far as possible and whose results should be mitigated, whether we call the plan adopted "insurance," "reserves," or by some other name.

(2) Individuals or even considerable groups of individuals have not in the past proved able to safeguard themselves from it and are not likely to be able to do so in the future.

(3) Voluntary plans for unemployment benefits, whether adopted by employers alone or jointly with labor organizations, while they are helpful as experiments or examples of what may be done, are purely fractional in their coverage and are apparently not destined to become contagious.

(4) The cost of unemployment relief, whether in the form of charity or of expenditure for public work that we probably do not need and cannot well afford, is not a legitimate charge upon the taxpayers. In so far as unemployment is unavoidable it becomes a part of the cost of production and should be paid ultimately by the consumer of the goods along with other costs.

(5) Charity for those who are able and willing to work is at best a back-handed and back-door method of tiding people over a crisis, cripples our finances, deprives other worthy causes like education and the church of their customary and much-needed support, and tends to promote pauperism and panhandling.

(6) What we need, therefore, is some farsighted program, general and inclusive enough to secure the protection and efficiency which comes with numbers and to avoid placing individual employers or industries at an undue disadvantage in competition, yet close and personal enough (perhaps through a merit rating) to bring the problem home to each party or individual able to do anything to solve it and to give them a powerful incentive to regularize their own industries and employment. Neither of these is a

complete and final remedy; but because we cannot do everything is no reason why we should take a supine attitude and do nothing.

Either a plan of unemployment reserves or one of unemployment insurance will help to break that vicious circle of planless management, irregular work, fear, loss of purchasing power, and more unemployment from which we have been suffering. Either one is a step in the right direction and it becomes only a question of how rapidly and how far we are willing to go. This much is certain, that we shall learn a great deal about it as we go along. If unemployment is not now capable of statistical treatment and of reasonably accurate prediction, it may become so after some years of experience. If it is true that western civilization cannot survive another great war, it may also be true that unless we do something now our cherished institutions may not be able to withstand another depression like the present.

PAUL H. DOUGLAS.—I should like first to discuss Mr. Meriam's contention that a system of unemployment insurance would still further accentuate the disparity between the production of producers' goods and consumers' goods during periods of prosperity, disorganize the bond market by the forced liquidation of securities during periods of depression, and fail in general to produce at such times the additional monetary purchasing power which will aid in lessening the depression.

Mr. Meriam assumes that the funds invested in periods of prosperity by the unemployment insurance funds and drawn from the diminished consumption of the workers would be entirely invested in government bonds and would thus release equal quantities of liquid funds for other forms of investment. This would be partially true if the governmental authorities displayed the same complete lack of intelligence which Mr. Meriam assumes, although even here the decline in the demand for consumers' goods would interpose some check upon the quantity of producers' goods which would be demanded while a wise open market and rediscount policy on the part of the Federal Reserve Board would also restrain undue expansion. But with a little foresight there would be no necessity that what Mr. Meriam fears should occur. A part of the unemployment reserves accumulated during the period of prosperity could and should be impounded in the form of gold and removed from circulation by depositing it in the vaults of the Federal Reserve banks and arranging that it should not be used to increase the cash balances or deposits of any bank. This would of course decrease the capacity of banks to expand their loans. Since the volume of credit which is created is from eight to ten times its gold base, it would only require the sterilization of from 10 to 12.5 per cent of the unemployment reserves to neutralize the maximum effect which the accumulation of such reserves might have in stimulating the development of capital goods. Any portion of the reserve which was sterilized above these amounts would therefore exercise a net restraint upon loans and hence upon the volume of investment in capital goods. If as much as one-quarter of the reserves were to be neutralized in this fashion, then there would be a very distinct check imposed upon the loans for the purpose of producing capital goods. It is true that such a

policy as this would involve the loss of interest on the funds thus withdrawn from circulation. But the unemployment insurance funds should not be run as a purely commercial enterprise. They should instead be managed so as to take their part in the interwoven set of institutions and policies which are needed to help diminish business depressions.

Mr. Meriam is also, in my opinion, much too fearful and too literal about the effect which the liquidation of these reserves would have upon the bond market. Even if the bonds were to be sold in the open market, the extraordinary degree to which recent government issues have been oversubscribed would indicate that the banks, whose reserves are certainly ample at such times, would be far more willing to absorb them with their unutilized funds than many would have us believe. But here again there would be no necessity for such open market sales actually taking place. The amounts impounded in the sterilized deposits could be paid out first. Then all that would be needed in the case of the government bonds would be a slight amendment to the Federal Reserve Act which would permit the insurance funds to deposit them with the Federal Reserve banks and receive in return either a loan or Federal Reserve notes. These sums would then be paid out in benefits which would directly increase the monetary purchasing power of the unemployed and build up the demand for consumers' goods and hence in part for producers' goods as well. This, if we may judge from experience, would tend to be a far more effective policy for the Federal Reserve banks to pursue during a depression than open market operations with the banks. For the net result of the policy of purchasing government bonds from the banks seems merely to have been to increase the cash reserves of the banks and this does not stimulate industry unless it results in increased loans which thus far at least, it certainly has not done. The policy here advocated however, would directly put monetary purchasing power into the pockets of people who otherwise would not have it and hence would constitute a force for recovery. The fallacy in Mr. Meriam's analysis seems to be that he assumes the monetary purchasing power to be at any one time a fixed quantity incapable of addition or diminution. Instead of that it is a variable which can be altered under different systems of control.

The conclusion would seem clear therefore that unemployment insurance, in addition to providing a better flow of income through time, and a pooled protection against risk, can also be used under proper management to lessen the violence of business fluctuations and hence provide a net stabilizing effect. But it is obvious that this can be done far more effectively if there is one pooled reserve for a state than if there are a multitude of separate and sovereign plant funds. It is along these lines that unemployment insurance can be of the most aid in decreasing unemployment, and I agree with both Mr. Meriam and Mrs. Burns that the added stimulus given to individual plants to stabilize will not be great.

There is a further way, however, in which unemployment insurance will probably tend to lessen business depressions and that is the stimulus which it will give to greater spending by those who continue to be employed. It was a familiar fact during the first year and a half of the depression that

savings bank deposits were increasing. This was in part due of course to the transfer of funds from more speculative purposes. But it was due also to the fact that when men see their fellows losing their jobs all about them, they realize that the blow may fall upon them at any moment and that if and when it does the only protection which they will have will be their individual savings buttressed by public and private charity. They therefore necessarily cut down on their expenditures and put more money into the banks in a frantic effort to accumulate as large a stake as possible. Now this would cause no harm if the world behaved as most of us were taught and in turn taught others. For the deposits flowing into banks were presumed to flow majestically and synchronously out in the form of investments. The demand for consumers' goods was, it was true, decreased but the demand for producers' goods was commensurately increased so that the workers displaced from the former occupations were presumed to find their place in the latter. But this naïve view has been well exposed by Wicksell and Keynes. As they have well shown, during periods of depression banks decrease their investments. The increased savings move therefore into the banks and are in large part immobilized there without getting out into circulation again as investments. The demand for consumers' goods is decreased and unemployment is created, but there is no commensurate creation of employment in the capital-producing industries. The provision of self-respecting unemployment benefits would diminish the fears which the employed workers would entertain towards the prospect of unemployment and hence would lessen their frantic personal savings at such times and increase the amount which they would spend upon current consumers' goods. There would thus be a better balance between spending and saving and less unemployment would be created than is the case at present.

There is a final point which I should like to touch upon which concerns the relation of adequate relief to insurance. If the unemployed when they have exhausted their maximum period of insurance benefit are then thrown back upon such humiliating, inadequate, and uncertain forms of charitable relief as are granted today, there will inevitably be a tendency to prolong the period of benefit so as to spare the workers from this experience for as long as possible. There will therefore be a danger that the insurance funds will become fiscally insolvent. This would not be so great a calamity as letting the unemployed suffer but it should, if possible, be guarded against. The best way of protecting the fiscal solvency of the system would be to build up reserves of adequate relief which may buttress the front-line trench of insurance. The experience of England and Germany indicates that these should be of a dual character: (a) a period of emergency benefits, paid for in large part by federal grants, which would carry those in need for from thirteen to twenty additional weeks; these sums should be paid out through the insurance machinery but they should not be automatic amounts but should instead be graduated according to the need of the recipients as determined by local committees; (b) after this period, the unemployed who were in need should be transferred to outright poor relief which, however, should be far more adequately financed than now.

The federal government should build up funds during periods of prosperity both for such purposes as these and for a program of public works through earmarking a part of the income taxes on the upper brackets and substituting a tax upon the excess profits of corporations. Since the vast majority of these funds would otherwise be invested in capital plant, they would not be, even with the very worst handling of these funds, any appreciable net increase in the amounts invested. The impounding of even a small proportion of these sums in sterilized cash reserves would therefore have a net stabilizing influence. Then during the period of the depression the creation of additional monetary purchasing power, in the fashion which has already been indicated for unemployment insurance, would certainly build up the demand for consumers' and for producers' goods with the result that the amount of unemployment would be directly lessened. I may say also that our past failure to accumulate such a reserve does not free us from the necessity of such expenditures during the present depression. I would as a matter of fact favor liberal expenditures for these purposes to be met from the issue or a guarded issuance of Federal Reserve notes to be retired later when the period of depression is over and when governmental receipts once exceed expenditures. All this would be in conformity with what seems to be the sound principle that while the government budget should balance over the period of the major cycle as a whole, there is no reason why it should balance in each and every year. The expenditures by the government should as a matter of fact move in an opposite direction from those of private business, expanding as the latter contracts and contracting as the latter expands.

SESSION ON STABILIZATION OF INDUSTRIES

TABILIZATION OF THE OIL INDUSTRY: ITS ECONOMIC AND LEGAL ASPECTS

By GEORGE WARD STOCKING

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Perplexed by the paradox of plenty, distressed by the realities of widespread want and acute suffering, harassed by the shrinkage of national income and the decline in general property values, confused by the lure of individualistic business control to assure stability to our economic mechanism, the business leader and the social philosopher are demanding industrial planning as a way out of the morass in which we are now floundering. Both have become doubtful of the adequacy of the invisible controls upon which we have hitherto so generally relied. Both have pointed the way out of our present economic confusion through the avenue of specific programs of social economic planning. As these general programs have been developed, some representing wide departures from our traditional controls, at least one industry with resort only to institutional equipment of the traditional sort has proceeded with the task of setting its own house in order. The American oil industry, we have been told by the Federal Oil Conservation Board in a recent report to the President of the United States, gives indication of being the first basic industry to emerge from the world depression.¹ To what extent, by what means, and with what consequences has this end been achieved?

Before answering these questions, let us give brief consideration to certain geological and economic characteristics of oil production, which have an intimate bearing on the problem of stabilization. As regards the geological character of oil production, it will be remembered that oil is found in subterranean porous rock formations in intimate association with gas and water. These substances have distributed themselves in their underground reservoir on a basis of their specific gravity and remain in a delicate condition of equilibrium frequently under great pressure. In a typical oil pool, gas is found in the uppermost part of the underground formation, oil beneath the gas, and water under the oil. Such a distribution represents a geological unit. Scientific development of such an oil pool, designed to secure a maximum of oil at a minimum of cost, would take as its point of departure the geological unit—the oil pool. It would endeavor to utilize in the most efficient manner possible the expansion of the gas and the movement of the water as expulsive agents in oil re-

¹ See *Report V of the Federal Oil Conservation Board to the President of the United States*, October, 1932, p. 1.

covery. The customary division of such a geological unit into arbitrary property tracts and their exploitation under a system of competition have constituted the major cause of waste in oil production. Such waste has been on a scale adequate to excite the admiration of the most profigate.³ It has been a persistent and an almost ubiquitous concomitant of oil field exploitation. Free gas has been permitted to escape unutilized into the atmosphere; gas pressure, the major expulsive force, has been dissipated in an extravagant and reckless manner; and oil fields have been flooded and ruined through the premature encroachment of salt water. For these wastes individuals are not primarily to be blamed. Rather, the system is at fault. These wastes inevitably flow from the competitive mining of a migratory mineral which recognizes no property lines and transgresses the principle of ownership. They are the product of a system of exploitation based on the principle of robbery.

The economic characteristics of oil production grow out of its geological peculiarities. In the first place, the vagaries of chance, not the rational decisions of economic man, are the forces which bring capacity into existence. No modern industry affords such an attractive field for the speculator, the sportsman, the gambler. Although science has contributed much to oil finding, the determination of the precise location of an underground oil pool still remains a matter for the drill. While large companies with their corps of geologists and petroleum engineers are the dominating elements in oil production, the wildcatter in a relentless search for liquid gold remains an essential though a dramatic and disturbing factor. Although the number of wildcat wells drilled bears a direct relation to the price of oil, their economic outcome, whether dry or producing wells, and their initial daily production remain a matter of indeterminable chance. And finally, under a system of competition, once a pool is discovered, whether the result of applied geology and petroleum engineering or the haphazard product of pure speculation, it must be exploited as rapidly as possible. Protective competitive drilling forces an increase in capacity with little regard to the economic condition of the industry.

A second economic characteristic of oil production is that capacity once called into being is driven into complete utilization by the irresistible forces of competition. This is the result of two factors: the fixed character of the investment in oil production, and the migratory nature of the mineral product. Oil production is an industry of relatively large fixed costs. The major investment is made in the process of drilling a well. It is an investment of a highly specialized sort. Once made, it can neither be withdrawn nor utilized for other than the purposes for which

³ For a more complete discussion of this problem, see G. W. Stocking, *The Oil Industry and the Competitive System* (Boston, 1925), Chaps. VII-X.

originally designed. This economic fact, coupled with the physical and geological character of an oil deposit—the disposition of oil to move through the pores of the underground rock once the equilibrium of the pool has been disturbed by the puncturing drill, and to move without regard to property lines on the surface—necessitates under a competitive régime production at maximum well capacity. As long as a well will flow under its natural pressure, it must be permitted to produce regardless of the price of oil.³ Any return on the original investment is better than none. Since oil is migratory, should an individual operator choose to curtail or cease production awaiting a better price for the product, it is for the benefit of a competitor on an adjoining tract who will reduce the fugacious mineral to possession. Even in the case of pumping wells, once the pumping facilities have been installed, it pays to operate them at maximum capacity as long as interest on purely liquid capital, which represents but a small part of total investment, can be secured.

In the light of its economic and geological characteristics, then, the oil industry promises to be recurrently plagued with overproduction. Paradoxically, oil may continue to be produced when it does not pay to produce it. The neat principles of theory are borne out by the stubborn facts of history. Despite continuous overproduction during the past decade, the speculative drive has persistently forced new capacity into existence; this has inevitably been translated into increasing annual output in the face of mounting stocks and a sharp downward trend in prices.⁴ Chronic or recurring overproduction is a plague to any industry. In the case of oil, by reason of the inelastic character of the demand for its major product, gasoline, the plague is especially virulent. The demand for gasoline is a derivative demand arising from a demand for motor transportation. The consumption of gasoline is apt to be more affected by factors exterior to the industry than by its own price. The condition of roads, the state of the automobile market, the general distribution of purchasing power, the customary habits of the populace—

³ In a practical way this statement is true. Theoretically, the irreducible minimum income which the operator of a flowing well must receive to insure continued operation must cover operating expenses together with interest on operating capital. But both of these items are relatively insignificant. The major expense would seem to be that of supervision.

⁴ Annual domestic output of crude oil increased from 878,867,000 barrels in 1919 to 1,007,828,000 barrels in 1929. Total of all stocks of crude and refined products increased from 196,185,000 barrels in 1919 to 689,166,000 barrels at the end of 1929. The price of 36° gravity Mid-Continent crude reached a peak of \$3.50 per barrel in 1920, dropped to \$1.50 in the early spring of 1921, and fluctuated within a 33 per cent range of that price until 1926. With a reduction in stocks in 1926 prices rose to \$2.29. A sharp increase in output in the latter part of the year and during 1927 broke prices to \$1.38, around which level they fluctuated until the downward trend was resumed in 1930. See *Statistical Bulletin*, American Petroleum Institute, March 26, 1931, Form 1 and *The Oil Weekly*, January 31, 1930, pp. 64-65. *Ibid.*, January 29, 1932, p. 42.

these would seem to be the major factors in determining the amount of gasoline consumed at any particular time.⁵ Although normal changes in the price of gasoline will not greatly affect its consumption, they will have a serious effect upon the profit possibilities of the industry. Uncontrolled production of a raw material the demand for whose major refined product is inelastic, carries, as is well known, especially disastrous consequences.

These several widespread influences, waste in the production of crude oil, capacity determined by the vagaries of chance, the necessity of utilizing to its fullest extent capacity once brought into existence, the difficulty of increasing total consumption through the avenue of price reduction, have pointed for some time to the establishment of a program of control for the oil industry. Until relatively recently the existence of waste, although a matter of great concern to the conservationists uneasy about the future oil supply, did not greatly trouble the leaders of the industry. Immediately preceding, during, and following the World War, with a rapid expansion in the use of oil-consuming devices, demand ran somewhat ahead of supply. Under these conditions, despite the tremendous burden of unwarranted overhead and the reckless waste of a limited natural resource, the industry prospered. Even then, evidence of its fundamental unsoundness was not lacking. The rugged individualists of the industry, however, looked with suspicion upon the suggestion that anything should be done about it. For long they were content to solve the problem of waste by denying its existence. The industry, fearful of governmental interference, sought to cure itself by the methods of homeopathy. For competitive ills, competitive pills. As late as 1925 we were assured by the Committee of Eleven of the American Petroleum Institute that avoidable waste in the industry had been eliminated; that there was no danger of petroleum shortage in America; that the industry, if left unfettered by restrictive government regulation, would continue to supply the country with petroleum in quantities adequate to meet the essential needs of industry; that, to achieve this end, the industry must be left to the free play of the forces of competition.⁶ And that was all.

Eventually mounting stocks and a weakened price structure seem to have raised an honest doubt in the minds of the leaders of the industry as to the efficacy of repeated homeopathic doses of competition as a remedy for its ills. Apparently they were made to see what they previously had denied the existence of—waste in oil production. Light seems

⁵ For a more complete discussion of the character of the demand for gasoline, see Stocking, *op. cit.*, pp. 83-84.

⁶ See *American Petroleum, Supply and Demand*, a Report to the Board of Directors of the American Petroleum Institute by a Committee of Eleven Members of the Board (New York, 1925) pp. 3-5.

to have dawned as the Greater Seminole field of Oklahoma spouted its flood of oil onto an already distressed industry. In October, 1926, the Greater Seminole field with only 37 wells completed had a daily production of 81,000 barrels. By August 9, 1927, 600 additional wells had been drilled and daily output had increased to 527,400 barrels. Meanwhile the price of 36° gravity Mid-Continent crude had dropped from \$2.29 per barrel to \$1.28. During this period a system of control of output was developed and applied to the Seminole field. It was a product of economic distress, not of economic statesmanship; it was a measure of desperation, not a manifestation of social vision. It was created, however, in the name of conservation. Since then, under the same banner, the program has been carried steadily forward until by the close of 1931 oil production had been brought under effective control.

The method by which output has been brought into harmony with consumption is known as a program of proration. At the outset the program was voluntary and local in character. It has since become nation-wide in scope and has had the authority of various state conservation agencies thrown behind it. Although its details have differed from time to time and place to place, its basic characteristics have undergone such slight modification that fairly accurate general description is possible. The program as practiced in Texas is typical. Until modified by recent changes it involved the creation of an extralegal, voluntary, central proration committee for the state, composed of representatives of the oil operators, whose function it was to determine the market outlet for crude oil for a specified period of time. This amount, which became known as the "allowable," represented the total number of barrels which pipelines and purchasing companies, canvassed for the purpose, had indicated a willingness to purchase from the various pools of the state at existing market prices during the specified period. After the allowable for the state and the various pools had been determined, the Railroad Commission of Texas conducted open hearings in which expert testimony was introduced for the purpose of proving that if production were not cut to the proposed figure, physical waste would ensue. The Commission then issued proration orders allocating an allowable output to the various pools of the state. Where testimony regarding the amount of oil which might be produced without waste in a particular pool was contradictory in character, the Commission was the final arbiter as to the amount which might be allowed. After the Commission's orders had been issued, this determined allowable for particular pools was prorated to the various producing units upon some agreed basis—by an umpire hired and paid for by the operators and a local, voluntary, supervisory committee created for the purpose. Such, in brief, was the proration machinery as it had developed in the state of Texas by the

close of 1980. Since that date, although in response to court attack and additional powers bestowed by legislation upon the Railroad Commission the machinery has been modified somewhat and its administration taken over by the Railroad Commission, its basic characteristics and major aim—the control of output—remain little changed. Similar machinery directed towards a similar end had been created in the other major oil-producing states by the end of 1980.⁷

As an instrument for the adjustment of oil production to the demands of consumers of oil and its products, the machinery had its defects. Unfortunately, this land has been rather continuously cursed by a surplus of refining capacity.⁸ This surplus has become increasingly embarrassing during the last decade. In 1980 the output of all refineries in the United States represented only 74 per cent of the rated daily capacity of all plants operating at the end of the year, and this despite an all-time record in the domestic consumption of gasoline and an all-time record of gasoline in storage. Refineries, anxious to cut down an unwarranted burden of overhead, were willing to purchase crude oil in excess of market requirements for refined gasoline. This was particularly true of refineries located in the vicinity of flush-production fields, for they could apparently show a satisfactory profit by operating at full capacity on low-priced crude even though forced to undersell the market with their low-priced gasoline. An increasing supply of so-called "bootleg gasoline" appearing on the market in recent years is a reflection of this situation.⁹ But bootleggers were not the only offenders. Refineries in general through their willingness to buy sufficient crude to operate as nearly as possible at full capacity have been producing gasoline in excess of market requirements during this period of surplus oil output. In recent years the wholesale and retail market situation for gasoline has customarily presented a picture of instability and frequently of demoralization. State-wide proration of crude oil based on market outlet for the

⁷ By this time similar proration machinery had been established in Kansas, Oklahoma and California, producing with Texas in the aggregate approximately 85 per cent of the total domestic output. The above description of the Texas proration machinery and the manner in which it worked is based upon mimeographed material secured from the technical adviser of the Central Proration Committee and upon personal observation through attendance at numerous open hearings conducted by the Texas Railroad Commission. For a description of the proration machinery set up in Oklahoma, see "Brief for Appellant Champlin Refining Company in the Supreme Court of the United States," October term, 1981, Docket No. 485, *Champlin Refining Company v. Corporation Commission of the State of Oklahoma*, pp. 10-13.

⁸ For a discussion of overexpansion in the refining branch of the oil industry, see Edward C. Petty, *Developments in the Petroleum Refining Industry as Related to Overproduction of Crude Oil* (University of Oklahoma, 1981).

⁹ The term "bootleg gasoline" as here used refers to gasoline which finds its way to the market through other than the well-established channels by marketers who refuse to follow the lead of the large organizations in matters of price. The term is also used in other connections to refer to gasoline on which payment of the state gasoline tax is evaded.

crude product proved inadequate as a stabilization measure. Its defects challenged the ingenuity of the leaders of the industry. They were not found lacking. Two steps were necessary. First, determination of total domestic demand for refined gasoline and of the supply of crude oil necessary to yield this determined amount under current refining methods, and, second, co-ordination of action among the several major oil-producing states in their proration endeavors. The former was achieved through the establishment of a Voluntary Committee on Petroleum Economics by the Federal Oil Conservation Board and of a similar committee by the American Petroleum Institute. These committees, acting separately, have issued reports at regular intervals, analyzing the market situation for oil and gasoline, estimating the probable demand for gasoline, and indicating the amount of crude oil necessary to meet these requirements. The Voluntary Committee of the Federal Oil Conservation Board has gone so far in past reports as to indicate the proper allocation among the major producing states of the total oil to be produced. Meanwhile, the proration machinery was extended so that it might more adequately fulfill its function in the light of the more complete information it possessed regarding probable oil requirements. The activities of the major producing states were co-ordinated through the instrumentality of an Oil States Advisory Committee set up in the spring of 1931 and representing ten of the major producing states. Since April, 1931, this committee has periodically forecast demand, recommended state quotas of production, and "effectively co-ordinated efforts towards national stabilization."¹⁰ Moreover, if the hopes of the industry and of the Federal Oil Conservation Board are realized, the work of co-ordination of the proration activities of the several states will be permanently provided for by the setting up of an interstate compact to be authorized by Congress under power granted by Article 1, Section 10, Clause 3, of the Federal Constitution. An organized movement for the enactment of such a measure is now under way. Under such a compact, in the language of the Federal Oil Conservation Board, the oil-producing states will be "authorized to collectively exercise their police power in trust for the Nation."¹¹

By such means an industry long buffeted by the violent and changing winds of competition has been guided by state aid into the protective haven of monopoly. The sailing has not always been easy, it is true. Confronted by an unexpected spout of oil from the flush production of the newly discovered East Texas and Oklahoma City pools, oil pro-

¹⁰ See Federal Oil Conservation Board, *op. cit.*, p. 19.

¹¹ Federal Oil Conservation Board, *op. cit.*, pp. 22-23. Interstate compacts of the general sort upon which the proposed Oil States Compact is to be patterned have hitherto been authorized by Congress, involving in the aggregate forty-four different states.

ration agencies, acting as pilots to a storm-tossed and distressed industry, have at times found shipwreck imminent. It has been avoided, however, by assistance promptly rendered by the governors of Oklahoma and Texas in calling out the state militia and forcing a temporary though complete shutdown in both fields. Nor has martial law alone been adequate. On two occasions when court injunctions had temporarily tied the hands of the State Railroad Commission, an emergency session of the Legislature of Texas was called for the purpose of enacting legislation broadening the oil-regulating powers of the State Railroad Commission.

Because the oil industry is not wholly an American enterprise, other steps have been deemed essential to make the proration machinery really effective. Through the efforts of the independent producers, who have alleged that the proration endeavors of the industry have been nullified through increasing importations of crude oil and refined products, a tariff on crude and its major products was included in the recent "Bill-which-Balanced-the-Budget."¹² Through the efforts of the leaders of the companies operating on a world-wide basis, the general principle of "stabilization . . . by reciprocal engagements to respect relative positions as regards exportations" was agreed upon at the international oil producers' conference in Paris this summer and a somewhat flexible quota plan was adopted designed to insure uniformity of action with regard to price changes and to adapt world production to changing conditions of demand.¹³

As the industry has pursued with unceasing vigor the goal of control of output, it has simultaneously endeavored to standardize its domestic marketing practices by means of a marketing code drawn up by the industry and approved by the Federal Trade Commission. The code, comprehensive in character, condemns as unsound and uneconomic the practices of lending or leasing gasoline pumps, subleasing sites for service stations at reduced rentals, granting credit for installation of equip-

¹² The bill provides for an import duty of one-half cent per gallon on imported crude, two and one-half cents per gallon on imported gasoline, and four cents per gallon on imported lubricants. Since the bill also provides for an internal excise tax of one cent per gallon on gasoline, the net protection to gasoline is one and one-half cents. The tariff on lubricants is designed to compensate for a domestic excise tax of a corresponding amount. It seems unlikely that these duties are high enough to shut out all imports, and there is little doubt that the movement for adequate protection will be carried further. Since we are a net exporter of crude and refined products, the tariff of itself will have little effect on domestic oil prices. It will, no doubt, contribute considerably to the decline in American exports, since low-cost foreign crude and gasoline formerly competing effectively with the higher-cost American product in the Atlantic Coast area will tend to replace the American product abroad. In 1925 American exports of gasoline represented 72 per cent of the total foreign trade in gasoline; in 1931 they represented only 38.6 per cent. This trend will undoubtedly be accelerated by our new tariff policy. On the other hand, the tariff does contribute to the effectiveness of domestic proration.

¹³ See *Oil and Gas Journal*, July 28, 1932, p. 11.

ment, selling gasoline from tank-wagons to trucks or other motor vehicles, and deviating from the posted price of gasoline by means of secret rebates, allowances, bonuses, concessions, unusual credits, scrip books or any other plan, device, or scheme which may directly or indirectly permit the buyer to obtain gasoline or kerosene at a net price lower than the posted price. Whatever may have been the aim of such standardization of marketing practices, the motives that prompted it, or the blessings that flow therefrom, it obviously represents an interference with price-affecting activities and it makes more certain the maintenance of a uniform price policy by the oil companies subscribing thereto. It weakens the effectiveness of competitive forces in determining the price of gasoline. Together with proration it translates control of output into control of price. It makes possible the attainment of the business goal of stabilization.¹⁴

To what extent has this goal been realized? Average daily domestic output has been reduced from 2,950,000 barrels to 2,100,000 barrels within a period of three years. More important, average daily production has been reduced below average daily consumption with the result that total stocks have been reduced by about 11 per cent. Mid-Continent crude oil prices at the end of the first half of 1932 were over twice the levels of a year previous and five times the low of 1931. The f.o.b. Gulf terminal price of 65 octane gasoline has increased from slightly over three cents per gallon to slightly less than six cents within a period of about a year, and a downward trend in retail gasoline prices has been sharply reversed.¹⁵ What other major industry can boast a similar

"The code was approved in the late summer of 1929. The machinery for its application to the industry includes a national committee, six regional committees, and subcommittees for states and districts with membership running into the hundreds. See *Oil and Gas Journal*, August 15, 1929. By December 12, 1929, it was announced that over five thousand signatures had been secured to the code and that the bulk of gasoline was being sold under code agreements. See *Oil and Gas Journal*, December 12, 1929, p. 41. Early in 1931 it was announced that the Federal Trade Commission had withdrawn its approval of the code. Upon application of the American Petroleum Institute, reapproval was extended pending hearings. On June 12, 1931, the code with slight modifications was reapproved by the Commission. The code is now under fire in the state of Texas, ouster proceedings having been begun against the major companies subscribing to it.

"Joseph E. Pogue, a leading professional petroleum economist and engineer, contends and endeavors to prove statistically that proration has been ineffective as a price control measure. (See "Economics of the Crude Oil Potential in the United States," *International Petroleum Technology*, March, 1931, pp. 24-27). Pogue establishes the fact that during the period of price decline from 1920 to 1926 there was a close correlation between price movements and changes in oil inventory. Since 1926 his correlation has not existed. With but little change in stocks, expressed in day's supply, the price trend has been sharply downward. Pogue explains this discrepancy in terms of the building up of large potentials; i.e., oil held artificially underground through the application of a proration program. Pogue regards this potential as an underground inventory with the same sort of influence on price that above-ground inventories exert. In the more common language of the economist, it represents supply hanging over the market. By regarding this potential as accumulated stocks, Pogue's analysis indicates a continued correlation between price movements and storage in

record? Third-quarter earnings of the oil companies show commendable progress. Although some oil companies have passed their dividends, most remain on a dividend basis. Some continue to pay the regular dividends of the era of prosperity. Some are even declaring extra dividends. On the

the period from 1926 to 1930. He concludes, therefore, that a proration program which permits the building up of underground potential must be a failure as a price control measure. Despite its appearance of statistical precision, Pogue's analysis is not altogether convincing. Nor is it essential to an adequate explanation of actual price behavior. During the period from 1926 to 1931, when proration was still in an experimental stage and new fields of importance were being developed, proration was an ineffective measure of price control because of the instability and uncertainty of the program. Despite proration throughout most of this period, daily oil production was on the increase until the close of 1929 and stocks continued to mount although less rapidly than in the previous period. At any time during the later period it seemed likely that proration would break down completely. Had it done so, potential production would have become actual inventories. Potential output in this sense and during this period in reality represented supply hanging over the market. Before the close of 1931, however, it became evident that proration, despite the threat of the East Texas and Oklahoma fields, was to be made to work. When that fact was established, the price trend was sharply reversed. So much for the facts.

The chief shortcoming of Pogue's analysis is that he assumes competition in the production and sale of crude oil. A proration program based on so-called market outlet obviously represents monopoly rather than competitive control, and in this instance monopoly control with the power of the state behind it. So long as you have such arbitrary restriction of the amount of crude oil which is permitted to flow on to the market, price will inevitably be affected. Any monopolist may have a tremendous reserve of capacity and raw material; but so long as this reserve is not permitted to become supply, it will have no influence on price movements, except to the extent that the breakdown of the monopoly is anticipated. An excellent analogy is afforded by the German potash industry. For more than a quarter of a century under a cartel control, output and price were effectively regulated under a quota system. During all this period capacity to produce potash through the sinking of new mines and the extension of old was tremendously increased. In 1909, when the cartel agreement temporarily broke down and it seemed that potash "potential" would be converted into a supply of potash, prices dropped almost 50 per cent. When the cartel agreement was re-established through state intervention and output was once more effectively restricted, prices promptly rebounded despite the continued existence of a large "potential."

It is possible, of course, that economic pressure might be transmitted into political pressure for the abandonment of proration. The discovery of new fields with increase in "potential" might serve to increase the severity of such pressure. If proration were to break down in the face of such circumstances, "potential" would obviously exert a very serious influence upon price. Likewise, so long as the rate of production of crude oil is effectively curtailed, even in the face of increased capacity to produce, such curtailment must have and, in truth, has had a very considerable influence upon price.

It may be objected by some, who will grant the validity of the foregoing criticism of Pogue's analysis, that proration is nevertheless self-destructive as a price control measure; that it will break down in the same way and for the same reasons that other artificial price control measures have collapsed. It may do so, as suggested in the last paragraph of the foregoing analysis. There are, however, some outstanding differences between this venture in price control and others which have failed. British rubber restrictions, for example, defeated themselves because they contributed very greatly towards an expansion in the plantation rubber industry. But oil is not a plantation industry. Higher prices may result in greater efforts to find oil, but not necessarily in greater findings of oil. Of course, a more intensive search for oil may result in the development of new capacity to produce oil. Meanwhile, however, existing capacity will have been reduced through the natural exhaustion of present fields. Should new discoveries increase total capacity, whether or not this would contribute towards the breakdown of proration would depend in considerable part upon where the new discoveries are located and by whom controlled. Obviously, great oil discoveries in areas

whole, their record would seem to afford a basis for the Federal Oil Conservation Board's claim that the oil industry is the first major industry to emerge from the depression.

Of course, these developments have involved a higher price for a product which a motorized age has made a necessity of life. They have also involved collusive action on an interstate basis among oil producers and state conservation agencies. Nevertheless, they are acclaimed as an achievement of the first rank in the field of industrial control. What a few years ago would have been viewed as a criminal violation of existing anti-trust statutes, federal and state, is now regarded as an act of economic statesmanship. What is the meaning of it all?

If we may believe the leaders of the industry, output restriction, price advance, and profit increase, although good in themselves, have been the incidental consequences of a broader and more public-spirited program. They are the by-products of a program of conservation and waste elimination. The oil men have reversed the dictum of Adam Smith. By consciously endeavoring to promote the public welfare, they have furthered their own selfish interests. So we have been told through press and public forum. Let us, then, examine briefly the achievement of proration as a conservation measure. It is true, as pointed out at an earlier point in this discussion, that uncontrolled production may mean the premature drowning of pools by the rapid infiltration of underground water; it may mean the wasteful dissipation of gas pressure essential for maximum recovery. It does not follow, however, that the application of an arbitrary program of proration which limits total output to "market demand" and distributes it among the various pools and wells on a basis of their potential means conservation. The results are, in truth, more likely to be to the contrary.¹⁶ Where conservation—that is, in-

not now subjected to proration, would endanger the whole program. Therein lies a distinct weakness of the present plan. Thus far California's proration is largely voluntary in character. Failure to develop a plan of the State Compact sort which will include all producing states, will obviously contribute towards the instability of the whole program. (It should be pointed out that the domestic program may be made to operate independent of the foreign situation behind a tariff wall with restriction of output to the domestic market.) It must be admitted, however, that the whole proration machinery as now established is in delicate balance, the equilibrium of which might at any moment be disturbed. For example, the withdrawal of Texas militia from East Texas under Supreme Court decision on December 12, 1932, threatened the disruption of the entire program. It was avoided by a complete shutdown of the entire field on December 17 for a period of two weeks. This instability of the proration program has been reflected in a weakening in the price of crude oil and of gasoline.

¹⁶ In pools where the major expulsive agent is gas, given a scientific spacing of wells, maximum recovery is more likely to be obtained with an unrestricted flow. This is true by reason of the fact that gas, which is either dissolved in oil or is in a free state above the oil, upon release of pressure tends to slip through the pores more readily than the oil. Curtailment of flow is therefore apt to be more effective in retarding oil output than gas output. The oil is more likely to remain behind. This is a matter subject to determination by experimentation with gas-oil ratios.

In those rarer instances where water drive is the expulsive factor, the situation is

creased ultimate production—is obtained, it is largely a fortuitous feature of the program. In the language of the lower federal court in *MacMillan v. Texas Railroad Commission*, conservation must be regarded as only an “accidental incident” to such a program of proration.¹⁷

Although such incidental consequences may not have been infrequent, the major wastes of the oil industry continue but little abated. Controlled rate of production has contributed in some instances, no doubt, towards a more efficient utilization of water pressure and has increased the ultimate production of particular fields; but because the basis of operation remains the property tract instead of the geological unit—the oil pool—gains in this direction have been but slight and widespread waste continues. Thus on October 31, 1930, the latest date for which data are available, out of a total daily production of 2,045,828,000 cubic feet of gas incidental to oil production in Texas, 467,758,000 cubic feet of raw gas were directly wasted into the atmosphere and 595,562,000 cubic feet were wasted after the gasoline content had been extracted. Total figures for other states are not available, but the Oklahoma Corporation Commission estimates that the Oklahoma City field alone is wasting about 203,000,000 cubic feet of residue gas daily. The fuel equivalent of this daily wastage of gas expressed in terms of coal is approximately 53,000 tons. More important is the fact that under a genuine conservation program with a unified system of production virtually all of this gas could be used for repressuring purposes with a tremendous although indeterminable increase in ultimate recovery. As daily output in East Texas has been restricted from approximately

likely to be reversed. The water, being heavier than the oil, is found beneath it. Under hydrostatic pressure the water drives the oil before it. But water, too, slips through the voids of the rock more readily than oil. In its enthusiastic endeavor to escape along the line of least resistance, it is apt to “bypass” and leave behind the more sluggish oil. Curtailment in rate of flow retards this tendency. It should be emphasized, however, that in cases of water drive not all wells should be treated alike to keep this tendency to a minimum. A proration program which sets up an arbitrary basis for per-well allowable is at best but a quasi-conservation measure. And of equal importance with rate of flow as a step towards conservation is scientific well spacing, a matter which proration ignores entirely.

It should be observed that the foregoing discussion of proration as a conservation measure is quite inadequate. Lack of space necessitates that it be so. It should be added, also, that by reason of court interference and a desire to protect more adequately correlative property rights, the basis of proration has changed from time to time and from pool to pool. The drift has been away from a reliance on a flat per-well allowable or a per-well allowable on a basis of potential to the utilization of more scientific formulas in determining per-well allowable, as for example, acreage, bottom-hole pressure, sand thickness, gas-oil ratios, etc. On the whole this drift is in the direction of conservation. The principle of conservation, however, has been so continuously and so effectively compromised for the protection of vested rights and the maintenance of the price of oil that waste in the industry continues to bulk large.

¹⁷ *Alfred MacMillan et al v. The Railroad Commission of Texas et al*. In the district Court of the United States for the Western District of Texas. Austin Division. No. 390 Equity.

a million barrels per day to 825,000 barrels, the number of producing wells has increased from 1,625 to over 9,000¹⁸ with an increase in developmental cost well over a hundred million dollars. The most striking comment that can be made with any degree of accuracy about such a program as a conservation measure is that it has increased tremendously the cost of producing oil in this field. Verily, as a conservationist, the industry has been straining at a gnat while swallowing a caravan of lusty camels. Behind a smokescreen of conservation it has effectively carried through a program of price fixing. In the language of the District Court of the United States for the Eastern District: "Under the thinly veiled pretense of going about to prevent physical waste the Commission has, in co-operation with persons interested in raising and maintaining prices of oil and its refined products, set on foot a plan which, seated in a desire to bring supply within the compass of demand, derives its impulse and spring from and finds its scope and its extent in the attempt to control the delicate adjustment of market supply and demand, in order to bring and keep oil prices up."¹⁹

But as the economic depression has deepened, the claims for proration have broadened. It is defended not only as a conservation measure but as a means of lifting the oil industry from depression and thereby contributing towards general economic recovery. The oil industry has not merely pointed the way out of our economic morass; it is said to be leading the procession. Nowhere have I seen a detailed analysis of the manner in which prosperity in oil is to be communicated to industry at large. At best the statement represents an uncritical assertion by those who hope it may be true. Suggestions have been made, however, as to the manner in which these results are to be achieved. In the language of the Federal Oil Conservation Board, "The effects of the industry's rising purchasing power are beginning to be felt. They will be further manifested during the fall and winter if production can be kept on a stable basis."²⁰

Let us subject this statement to closer scrutiny. This increased purchasing power in the hands of a particular group has been made possible primarily by higher prices for gasoline. It has been at the expense of approximately 26,000,000 users of automobiles in America. It has been contributed in small bits by practically the entire American population. It represents a transfer of purchasing power from the man of little means and its concentration in the hands of the man of large means. To the extent that it remains in the treasuries of the large corporations undistributed as dividends, it may serve to complicate further an already

¹⁸ 9,072 as of December 2, 1932.

¹⁹ *MacMillan et al v. The Railroad Commission of Texas*, *op. cit.*

²⁰ *Federal Oil Conservation Board*, *op. cit.*, p. 1.

confused situation in the oil industry by contributing to a further expansion of an industry whose chief ill is overexpansion. To the extent that it is paid out as dividends, it tends to swell the purchasing power of those who have at the expense of those who have not. It thereby serves to retard recovery from a depression one of whose major causes, at any rate, has been oversaving occasioned by a maldistribution of national purchasing power. As a means of general economic recovery, stabilization of the oil industry is likely to prove a delusion and a snare.

Despite this fact, we seem to have launched irretrievably upon a program of control for the oil industry. Not only has this program the support of the industry under whose leadership it has been established, but as previously stated, it has been given legal status by legislative enactments. In a number of states its administration has been taken over by state conservation agencies. The influence of our national government has likewise been placed behind it. More important still, it has had the stamp of legality placed upon it by a recent decision of the Supreme Court of the United States. In *Champlin Refining Company v. Corporation Commission of the State of Oklahoma et al.*, a case involving indirectly the legality of the whole Oklahoma proration scheme, the Supreme Court in a unanimous decision handed down on May 16, 1932, held that the orders of the Corporation Commission were not issued for the "purpose of fixing the price of crude oil nor have they had that effect,"²¹ that on the contrary they represent an appropriate exercise of the Commission's power to prevent waste in the production of oil for the protection of the correlative property rights of the owners of a common underground pool of oil.

Space will not permit a complete analysis of the reasoning by which the Supreme Court came to this striking decision. It should be pointed out, however, that the Court was much impressed by the fact that the price trend had been downward throughout virtually the entire period in which proration had been in effect. That fact is in no way in contradiction with the analysis which has been made in the foregoing pages. It has been pointed out that proration was the child of economic distress. It was instituted in the face of expanding petroleum production and declining prices. It was first applied locally. In the face of continuing distress of the same sort as called it into being, the program has been expanded and perfected. By the end of 1930, when its temporary success had permitted an inroad into stocks for the first time, its very foundations were threatened by developments in the Oklahoma and East Texas fields. In the summer of 1931, with the latter field producing a million barrels of oil a day (more than one-third of the total American output) and development only well started, the retreat

²¹ *Supreme Court Reporter*, Advance Sheets, June 1, 1932, pp. 559-568.

of prices broke into a rout despite the effective functioning of proration in other fields of the country. When it became evident that the heroic steps taken by the governor and legislature of the state of Texas were not to permit production to run wild and wreck the stabilization machinery which had taken years of painstaking effort to erect, prices promptly rebounded. Since the summer of 1981 the trend has been sharply upward. There seems little doubt that artificial restriction of output is responsible for this fact.

More important than the accidents of a price trend in determining the Court's decision, however, is its fallacious assumption that market demand for crude petroleum is a fixed quantity and that production in excess of this amount would inevitably have caused waste. Although the demand for the major petroleum product, gasoline, seems to be relatively inelastic, the demand for crude oil has shown considerable elasticity. In the first place, as its price is lowered, crude cuts more heavily into the fuel market of coal. In truth, this tendency accounts in part for the continued depression from which the coal industry has suffered for the past decade or more. In the second place, as American crude oil becomes lower in price, it cuts temporarily, at any rate, into the market of those foreign crudes whose production, by reason of more concentrated ownership, is more readily subject to control. In the summer of 1981, as the price of East Texas crude dropped to fifteen cents, the market for it broadened with amazing rapidity. The Supreme Court's assumption with regard to a fixed demand for American crude seems to have no logical foundation in either fact or theory.²²

²² Professor Fetter takes sharp issue with the above criticism. He points out that the Court refuses to accept the terms "economic waste" and "reasonable market demand" as a basis for its opinion on the grounds that they are too vague and indefinite in character. The Court, holds Professor Fetter, based its opinion on the question as to whether or not the proration orders were designed to eliminate physical waste. Professor Fetter is right only to this extent: The Court held with regard to the penal clauses of the Oklahoma Act that these phrases "are so vague and indefinite that any penalty prescribed for their violation constitutes a denial of due process of law." Having discarded the phrase "reasonable market demand" as too vague and indefinite to serve as a basis for fixing penalty against the violators of the Commission's orders, the Court does not hesitate to use it in its reasoning with regard to the legality of proration. Thus: "The commission construes the act as intended to empower it to limit production to the amount of the *reasonable daily market demand* and to require ratable production by all taking from the common source. In current orders it has found that waste of oil will result in the prorated areas unless production is limited to *such demand*. . . . And it found that the existing stock of crude in storage exceeded the needs of the industry, and that purchasers were unwilling to buy in Oklahoma for storage in any amount sufficient to take the surplus of potential production in that state. . . . The court found . . . that, if no curtailment were applied, crude oil for lack of market demand and adequate storage tanks would inevitably go into earthen storage and be wasted; that the full potential production exceeded all transportation and marketing facilities and market demands; . . . the reasonable market demand [from some pools] was greater in proportion to potential production than in others. . . . In each case the commission has allowed to be produced the full amount of the market demand for each pool. . . . The court found that none of the proration orders here involved were made for the purpose of fixing prices.

But despite its economic shortcomings, more than likely the decision will stand. Other cases are now pending, but whatever may be their outcome, it seems extremely unlikely that the machinery for regulating the production of petroleum will be cast upon the dumpheap. It may be altered; but so long as the industry is threatened with overproduction, it is not likely to be discarded. Nor should it be. If our analysis of the economic and geological character of oil production is sound, unrestricted competition is intolerably destructive. A genuine conservation program demands a type of control which takes as its point of departure the geologic unit—the oil pool. Compulsory unit operation of oil pools would seem to be the next step, a step which many leaders of the industry would indeed welcome. This, of course, would not only permit the exploitation of oil pools without waste, but it would make control over the rate of production even more effective. However, restriction of output, behind the protection of a tariff wall, of an essential raw material upon which the daily lives of almost our entire population have come to depend, invites, if it does not demand, a further extension of control—a type of control under which protection of the consumers' interests will be insured rather than assumed. The oil industry's program of stabilization may point the way towards a more comprehensive and complicated control than the industry had hoped for—or feared.

The fact that the commission never limited production below market demand and the great and long-continued downward trend of prices contemporaneously with the enforcement of proration strongly support the finding that the orders assailed have not had that effect."

In all these uses of the term "market demand" I insist there is the naïve assumption that there is some one amount of oil which can be disposed of at a particular time (without waste) irrespective of price. It is no doubt likely that if all the oil wells of all the flush fields of the United States were simultaneously opened to maximum capacity, daily production would temporarily exceed transportation and storage facilities; but this assumption is quite different from that of the Court—that if production were not restricted to figures set by the Commission (at the request and in the interests of the industry anxious to sustain the price of crude oil and gasoline) production would necessarily result in physical waste of oil. The amount of oil which can and will be taken off the market at five cents per barrel is radically different from the amount which can be disposed of for one dollar. Five-cent oil will quickly find additional transportation and storage facilities, as indeed it has done. With oil in East Texas selling well above this figure, as stated in the discussion above, its market widened promptly. Indeed, it resulted in the carrying of coals to Newcastle. At least three shipments of fifteen-cent crude found their way into Mexico—itsself an oil-exporting country. I can only conclude that the Court's decision is based on the naïve and fallacious assumption that market demand for crude oil is a fixed quantity. Let those who doubt this read the decision for themselves.

REQUISITES OF STABILIZATION IN THE COTTON TEXTILE INDUSTRY

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Judged according to the annual consumption of its products, the cotton goods division of the textile industry betrays no great instability. Prior to 1930, cotton goods consumption enjoyed a definite upward trend, and subsequently has declined by less than 20 per cent, despite the relatively more severe decline of public purchasing power.

In sharp contrast to this tenacity of demand is the violent instability of the industry's production behavior. The problem of adjusting output to consumption began to be a serious one as early as 1924 and by 1929 had assumed alarming proportions, independently of the state of general business. Within this period, despite the increasing use of cotton goods, mill shares in New England declined about 80 per cent and in the South approximately one-half.

The see-saw relationship between production and sales is illustrated by the following examples. In 1927, sales in the first quarter ran ahead of production by 80 per cent; in 1928, first quarter sales ran 17 per cent behind production. In the fourth quarter of 1927, sales were 20 per cent under production; in the fourth quarter of 1928, they were 10 per cent ahead of production.

The erratic operation of machinery is vividly portrayed by the accompanying table which shows the extent of fluctuations in spindle hours for selected one-year periods.

<i>Period</i>	<i>Change in spindle hours %</i>
March, 1928, to March, 1924	-25
July, 1924, to July, 1925	+35
March, 1927, to March, 1928	-10
April, 1928, to April, 1929	+20
May, 1929, to May, 1930	-26
July, 1930, to July, 1931	+23
July, 1931, to July, 1932	-45

Such behavior implies not only a chronically unwieldy inventory situation, frequent price demoralization and highly fortuitous profits, but also reveals the uneasy position of the workers. Even in relatively good years, mill employees on the average can expect to work only about 75 per cent of full time. This irregularity of employment is a circumstance which is scarcely less adverse to the welfare of the employees than is the lowness of the wage rate.

The underlying downward trend of profits already evident before the general depression of all industries is of course associated with, but

not wholly explained by, the accelerated movement of the industry southward. Although the southern division of the industry had expanded rapidly before 1928, it was supplying the growth needed by the industry as a whole to keep pace with broadening consumption and hence was not depressing in its effect. After 1928 the southern growth did not contribute to the enlargement of the industry as a whole, but was made at the expense of the New England division. Hence, during the remainder of the decade while the South was gaining approximately three million additional spindles with corollary equipment, other states were losing about five and one-half million spindles.

The net shrinkage in physical machinery was more than offset by the growing use of the double-shift in southern cotton mill operations. Strangely enough, this practice reached its crest in the years 1928, 1929, and 1930, after the tendency to chronic overproduction had become evident to the entire trade. It was not uncommon for mills to utilize night-shifts when they were unable to provide more than half-time employment for their day shifts. The industry came into its condition of acute overcapacity in the late twenties, therefore, not primarily because of overinvestment, but because of the frantic efforts to reduce overhead expense by night-work.

<i>Year</i>	<i>Hours worked per spindle</i>
1924	2353
1925	2594
1926	2708
1927	2892
1928	2878
1929	3078

From 1924 to 1929 the annual growth of running time per spindle amounted to almost 700 hours which is equivalent to virtually three months running time according to Massachusetts standards. In the one year, from 1928 to 1929, the increase was 200 spindle hours, the equivalent of one full month. But the national average of 3078 hours per spindle in 1929 is dwarfed by the southern average of 8616 hours per spindle for that year.

Although night work reflected intense competitive pressure, it did not stop altogether the making of additional investments. This was due partly to the high degree of specialization in cloth and yarn manufacture. So numerous and so varied are the products of the industry and so kaleidoscopic is the character of demand that the forces of depression do not attack evenly. However unfavorable the general market, there are nearly always certain types of products which are profitable. These scattered and more or less fortuitous opportunities for profits in particular lines are more likely to be met by new plant and equipment than by the expansion of existing establishments.

There is the further fact too of a wide disparity in labor costs between the upper tier of southern states and those that constitute the deep South. A differential of this character is effective only in the manufacture of coarse and medium count staples, but it provides an opportunity for profit regardless of overcapacity elsewhere.

In any case, New England is virtually out of the picture, except in very fine constructions, fancy weaves, and rayon specialties, whose successful manufacture is conditioned less upon cheap labor and automatic looms than upon artistic skill and up-to-the-minute finishing and merchandising facilities. The completeness with which the various fabric classifications have been divided between the two areas suggests that the greater part of the territorial readjustment is over. The major problems with which the industry is now beset, therefore, have but little to do with inter-regional competition.

They are for the most part due to the decentralized and disjointed character of the industry's organization which is unable to cope with the violently fluctuating cotton markets of recent years; has met clumsily the special problems incident to the vastly increased importance of the fashion element in cotton goods; and has established no defenses against the new types of buyers who now dominate the primary cloth markets.

To explain the chaos wrought, it is necessary first to view the industry's structure. In the South, it is still an industry whose units are for the most part relatively small, widely scattered, and numerous. Ownership and management are mostly in the hands of local interests. Very rarely does a single enterprise do more than a fractional part of the processing required to convert raw cotton into a finished usable product. There is instead a series of specialists, the output of one constituting the raw material of the next. Approximately one-fourth are exclusively spinning mills and a small percentage are exclusively weaving mills. Most of the cloth mills do some spinning; a few of them make practically all of their required yarns; and still others produce an excess of yarns, which they dispose of in the market.

A majority of the cloth mills are not equipped to do their own finishing and so sell their products as "grey goods." Finishing, which includes such processes as bleaching, dyeing, printing, and napping, is therefore in the hands of another group of specialists. But between the finishers and the cloth mills is still another group called the converters, who purchase grey goods or semifinished goods from the mills or commission merchants, determine the style characteristics to be imparted, and have the finishers do the actual processing on a price-per-yard basis. In their purchase of grey goods the converters do not for the most part deal directly with the cloth mills but purchase through commission merchants. The latter handle both finished and unfinished goods. Purchasing

a large part of the converter's raw materials for him, they likewise sell for him a goodly portion of his finished goods.

Into the primary cloth markets, where the commission merchants act as chief representatives of most mills, come not only the converters, who are large and shrewd buyers, but also the dry goods wholesalers, the garment manufacturers, the great retail buying organizations, the chain stores, the mail order houses, the buying syndicates, and the large industrial consumers.

These are buyers of vastly greater power than those with whom the mills were wont to deal a decade or more ago. Yet the typical cloth manufacturer not only does not come in touch with them but is satisfied merely to turn over his selling accounts and selling responsibility to a commission merchant, who is at the same time representing from fifteen to seventy-five other mills.

The commission merchant as selling agent is essentially a trader. His major concern is the immediate activity of the market—his volume of sales. Both his income and his standing in the market are conditioned upon moving the goods. He of course dislikes a development which is unfavorable to his mill clients, but as a matter of business he must provide orders for them. His only alternative is to go with the market and become a dynamic part of the daily whirligig.

This alternative is frequently made more urgent by the fact that many mills look to their selling agents for their financing, borrowing from them against orders or on security of goods in stock. As a result of these credit practices, many mills are almost continually in debt to the selling houses. A more vicious method of financing for an overproducing industry could hardly be devised. It has the twofold effect of putting the mills in a position where they must sell goods regardless of cost in order to meet bills payable, and putting the merchants in a position where they must insist upon such action for their own protection.

Beyond the commission merchant in the sequence of processes is the wholesaler or jobber. His importance in textile distribution waned after 1923, but at the present time efforts are being made toward his resuscitation. He differs from the commission merchant in that he buys goods on his own account and sells from stock. His loss of prestige came from the rapid growth of chain stores, from the formation of buying syndicates, and the increasing size of department stores, mail order houses, and garment manufacturers. The larger and stronger buying units tended to brush aside the wholesaler and to approach the commission houses and larger mill organizations directly. This has radically changed the entire aspect of textile goods bargaining. Faced by so formidable an array of buyers who are thoroughly conversant with the weaknesses of the mills and at the same time able to control the placing of large

orders, the commission merchants are in no position to counter effectively. They can only pass back to the mills the price ideas of the buyers and in the present state of the industry the buyers price usually prevails.

An even worse consequence of this inchoate industrial structure is the highly speculative tone that it imparts to all of its intergroup transactions at times when the cotton market is perceptibly fluctuating. A promise of higher prices for cotton produces a stampede of buying all along the line from the yarn market to the final dealer in finished goods. The easy inflow of orders works like a tonic on the mills. They place more contracts for raw cotton. Production schedules are enlarged. Night shifts are thrown into operation. The contagion of forward buying spreads; the increased mill takings give cotton prices another fillip, and the vicious circle is not broken until all inventory space from dealers' shelves to mill warehouse is filled with goods, as in the autumn of 1927 and the spring of 1930. Of course, no thought has been given to consumer behavior; nothing has been happening there.

Precisely the opposite type of reaction attends a downward trend of prices of cotton. Buying becomes stagnant; orders are small and only for immediate needs. The mills perforce must risk manufacturing to stock, or else close down. There is, of course, no basic reason why mill profits and mill volume should be reduced merely because of a decline in cotton prices. It is only the action of the individual mill, pressing for business to counteract the natural desire of dealers, garment manufacturers, and converters to reduce inventories at such a time, that occasions the general price debacle.

Fashion changes play an important rôle in the troubles of the industry. They, too, have been much more pronounced and pervasive in recent years. They have not operated to reduce total consumption but have done their damage by continually forcing changes in the composition of output. The popular fallacy is to associate style changes with apparel goods only. But most fabric constructions are now subject to style changes. Even denims, gingham, and osnaburgs are susceptible. Overalls, draperies, flour bags, furniture and automobile upholstery, curtain materials, and even sheets and bedspreads have all become extremely sensitive to changing modes.

Before the war probably 80 per cent of textile goods were staple. The other 20 per cent went through its transitions slowly so as not to outpace the slow trickle of fashion through the masses. But these changes are no longer gradual. They now affect virtually every type of fabric in all areas with lightning-like speed. Since the disturbing influences of fashion changes lie in the type and design of goods, the danger to mill converter, or jobber, or garment manufacturer lies in the imminent

possibility that his chosen design or construction may become unpopular—that a sudden change in public taste may leave him with large stocks of unsold and unsalable goods. The seasonal nature of the business accentuates these hazards, as it necessitates manufacture and purchase of goods further in advance than would otherwise be the case, and at the same time increases the danger of a carry-over.

No device has been found that eliminates this risk. The industry annually suffers from this source a loss of many millions of dollars in addition to the millions lost through adverse movements of cotton prices. Each specialist in the industry tries to meet the risk by transferring it to someone else. The retail buyers meet the problem by delaying orders for style goods as long as possible and then clamoring for rush deliveries. The converter does the same thing in his purchases of grey goods, unless the cotton market dictates otherwise, and then at the last minute crowds both mills and the finishers. As the various types of dealers, converters, garment manufacturers, and industrial consumers seek to escape risk in this manner, they add proportionately to the burdens of the mills. Here, the large capital invested and the maintenance of the labor force require regularity of output if operations are to be efficient and profitable, yet attaining it in this way probably means indebtedness, great risk, and overproduction.

When the organization of the industry is thus viewed in its relationship to the cotton market, to the changed character of buyers, and to fashion influences, there is but little wonder that prosperity is the unusual thing, can only be short-lived, and must spring from unusual circumstances. The individual plant as now constituted can do but little as an independent unit to make it otherwise. It is free, to be sure, to increase its own mechanical efficiency in every way possible, but the advantage from this is realizable only to the extent that its competitors fail to do it. Were all existing plants immediately brought to the acme of perfection as regards method and equipment for the manufacturing process, it is doubtful if any one would be the gainer unless radical improvements were effected in the relationship of the various groups that compose the industry.

By the same token, the utilization of cheap and cheaper labor is only of transient advantage to the mills. It merely sets in motion a series of new influences which tend to make all wages lower with only temporary profit to those who have brought it about.

As to the means which will be most effective in stabilizing the industry there are two schools of thought, one insisting upon a radical reorganization of the industry itself and the other upon vigorously directed co-operative action with a retention of the present structure.

That much can be accomplished by the latter method is evidenced by

the work of the Cotton Textile Institute. Organized in 1926, it has through courageous and enlightened leadership steadily grown in its influence upon the industry. In addition to serving as a clearing house of information on current trade data, it has energetically pushed certain reform measures. It has succeeded in gaining from about 82 per cent of the mills a pledge to limit the standard working week for day shifts to 55 hours per week and for night shifts to 50 hours per week. In addition it has striven for the voluntary abandonment of the night employment of women and minors and, in August of this year, had brought 88 per cent of the spindles into compliance with this plan. The greater activity of September and October, however, produced a considerable number of desertions.

In June, 1932, the operations of the industry being at low ebb, the Institute made its boldest stroke to date, recommending to the industry the complete abandonment of night work for one year beginning in October. Before the plan could be ratified, business had begun to pick up "and this, with other factors," to quote from the Institute's report, "demonstrated that the time for such an undertaking was not propitious."

The Institute has been especially active in urging upon the mills the adoption of standard cost systems, in order that they may be more intelligent in their price policies. It now reports that 61 per cent of the mills have reasonably adequate cost methods whereas the percentage in 1925 was only 26. It is not difficult to understand that the application of better cost knowledge has the natural result of encouraging mills to refrain from producing or selling goods at a loss. Whenever this occurs a definite contribution has been made toward bringing about more stabilized conditions.

The Institute has selected as its major objective the avoidance of overproduction. All educational activities and essays in persuasion have this one end in view. It believes that its efforts are at last bearing fruit and as proof of this points with pride to the success of the industry in reducing inventories steadily since 1930. In his annual report for the current year President Sloan points out that the industry's sales for the past two years have exceeded production and that stocks on hand as of September first were 46 per cent less than the three-year average for this date, a truly favorable situation.

It is no disparagement of this fine achievement to state that it was accomplished under the pressure of an almost unbroken three-year decline in the price of raw cotton. Whether overproduction can be avoided under a condition of rising cotton prices still remains to be seen. So far, it has never been done.

There are many who would seek a higher degree of stabilization

through legislative prohibition of night work. However desirable this reform from a social point of view, its chief economic gain would be a diminished rate of speed in bringing about speculative overproduction induced by the cotton market. It would doubtless precipitate a new orgy of mill construction which could probably not be checked until excessive plant capacity once more prevailed. It would in no way touch the major causes of instability which lie in fashion changes, merchandising methods, and raw cotton speculation. There is moreover the almost insurmountable practical difficulty of securing similar legislative action in a sufficient number of states to be effective.

The most hopeful pathway toward greater stability in the industry, though it will be traversed very slowly, is the one which leads to a radical reformation in the industry's structure. The change most needed is a form of control which will supply continuity of supervision all the way from the spinning process to the final disposition of the finished product. In other words, each unit of the industry, instead of being an enterprise with a single function, must be an enterprise which brings together all the processes under a single unified control. As we have noted, the separation of spinner from weaver, of weaver from converter, of converter from commission merchant, of commission merchant from piece-goods buyers and garment manufacturers, has resulted in setting up what is tantamount to a series of speculative mechanisms. Each point of connection plays its part in the clouding of the judgments and activities of the various divisions. Where there should be co-ordination there is conflict; where there should be exclusive interest in the functions necessary to the work of the industry there is often greater interest in the profits from fortuitous circumstances and shrewd forestalling.

With the adoption of unified control, each process is regulated with only one thing in view; and that is the efficient performance of its own particular rôle in providing the finished fabric. It is an arrangement which assumes that the basic controlling influences in the industry emanate from the market for finished goods. It would regard the manufacturing process as being strictly technical in character, concerned only with the scientific aspects of the proper use of raw material, personnel, and machinery. Its proper task is to supply goods according to specifications of those agencies which function in the ultimate markets.

As it is now, production schedules are commonly controlled by men who are not even remotely associated with the market and are wholly ignorant of the forces which are shaping market tendencies. No wonder that so many units are constantly on the verge of insolvency, and that the industry as a whole is continually losing its balance.

With the adoption of large vertical integrations, the way would be opened for the development of what is commonly known as good-will in

the process of distribution—a thing impossible for most of the mills at the present time. The requirements of consumer and trade good-will (that the product be identifiable, that it be produced in volume, that it have publicity and continuity, and that it be not unduly crowded by a multiplicity of competitors) are conditions which can never be met by the many hundreds of textile enterprises which operate as small independent mills. There can be no pride of parenthood. The products of each mill lose their identity and become utterly indistinguishable in the mass of outwardly similar products long before they reach final hands.

Hence in the primary markets the emphasis is always on price. Price weakness developing on any given construction is at once transmitted to the similar products of all mills. No mill has any defense except to withdraw its offerings completely, a policy which it dare not adopt in practice because of its own insignificance in the market. This explains why a recalcitrant or badly managed 10 per cent of the cloth mills can by pushing sales regardless of profit entirely demoralize the market for the remaining 90 per cent.

From the standpoint of textile consumers whether of apparel, piece goods or draperies, the origin of the goods is usually wrapped in deep mystery. A purchaser is usually unable to repeat an order if the goods are satisfactory and equally unable to avoid the products if they are undesirable. It is not a situation which encourages sound policies either in merchandising or manufacturing. Paradoxical indeed it is that an industry which has been successful in the past decade in producing an almost limitless range of fashion goods and novelties in myriads of designs in order that it might humor the vagaries of public taste, at the same time keeps its operations so shrouded that the very consumers to whom it frantically caters know nothing either of the goods or of their makers and are unable to exhibit discrimination even when they desire to.

Though the integration movement is well under way its progress will be necessarily slow. Since the converting and selling agencies are very large units and must continue so, the greatest practical difficulty in the formation of a merger of the vertical type is that there must be either a preliminary horizontal combination of many small mills, or else they must be gradually absorbed by a converting or selling house. The traditional individualism of the small mills is a serious deterrent in either plan. Since textile securities have but little financial standing with bankers or public, combination must be achieved mainly by an exchange of stock, which always involves long drawn out and tedious appraisal operations.

The equivalent of integration has been gained by the rubber tire manufacturers who now own virtually 75 per cent of the tire fabric mills. Marshall Field & Company supplies a large part of its textile

fabrics from its own mills. The Simmons Company has followed a similar policy in meetings its fabric requirements.

Exclusively textile integrations are represented by such organizations as the Cone Mills, the Pepperell Manufacturing Company, the Pacific Mills, the Wamsutta and Nashua Mills, who completed their consolidation within the past few weeks, the United Merchants and Manufacturers Corporation, the Berkshire Fine Spinning Associates, the Holt-Love group of mills, Textiles Incorporated, the Cannon Mills, the Riverside and Dan River Cotton Mills, the Kendall Company and others. The recently reorganized Hunter Commission and Manufacturing Company, which is said to have come to grief primarily because of its banking operations, represents a close tie-up of manufacturing, finishing, and marketing functions.

Throughout the textile field, all important readjustments of organization and structure are definitely in the direction of closer integration of processes all the way from spinning to the final marketing. It is a movement which properly conceives the merchandising function as predominant in control. It aims to minimize commission selling, to transfer financing to the factoring houses and the commercial banks, to reduce the converter from whimsical independence to departmental conformity, to reshape the mills into obedient technical servants. It requires that cotton staple from the standpoint of the mills shall be merely a raw material and not a commodity for speculation; that profits shall come from the creation of utilities and not from shrewd trading among the component parts of the industry; that in the performance of the long sequence of processes from the cotton field to the cloth counter there shall be directness and co-ordination instead of indirection and conflict; that in the analysis of consumer requirements there shall be knowledge and precision instead of guessing and gambling.

DISCUSSION

JOHN D. CLARK.—Even those who support the American policy of competition and believe that the wastes of competition are more than counterbalanced by its advantages must concede that petroleum production has characteristics which require a different policy. If no restraint were imposed upon production from the tremendous fields recently developed the limited supply of this irreplaceable natural resource would be shamefully wasted and price would fall so low that the small wells would have to be closed down, never to be reopened.

Three methods of stabilization of oil production may be proposed:

Public ownership, which is no solution for present difficulties because it cannot possibly be attained in time to meet the existing crisis.

The industry might be released from the Sherman Act and agreements restraining production be authorized. But this would require public price-fixing and price-fixing is far more difficult than in the case of any utility. The costs of oil production vary from two cents to two dollars per barrel and our experience with the recapture law affecting railroads has shown that there is no successful way to fix a uniform rate which is compensatory for high cost producers without permitting low cost producers to profit extravagantly.

Ignoring the Sherman Act and the making of agreements for limitation of production. State and federal officials are co-operating in this program and the Department of Justice is quiescent. This program has been reasonably successful in keeping production down and in maintaining prices high enough to keep most producers in business.

I do not agree with Professor Stocking that any burden has been thrown upon the public, for the refinery price of gasoline in Oklahoma, the basic market, is only four cents per gallon.

While this policy of opportunism is extralegal and involves the substitution of the judgment of men for the rules of law, it has many advantages. It permits a reasonable degree of control of production without committing the country to some new policy which might fail disastrously and from which retreat would be impossible. And the Sherman Act and the attorney general are there to protect the public if the policy of stabilization becomes too effective or is continued too long. But they will never have to interfere to restore competition in oil production. As soon as flush production declines and the emergency passes the small producers will overwhelm the advocates of stabilization and the emergency policy will collapse.

FRANK A. FETTER.—In this period of depression stabilization is a word for selfishness to conjure with. Many individuals and industries, thinking in terms of their own plight, are declaring that if they were permitted to exact higher prices from the rest of us the general depression would quickly end. This implies a new theory of the business cycle, now and for the future. It is the logic of the panic-stricken in a theater fire. "Let all the rest of you sit calmly in your seats while we clamber over your shoulders and make for the doors." In my brief allotment of time I will confine my remarks to some of the issues raised in Professor Stocking's valuable paper.

The encroachments of special privilege upon popular rights have been steadily advancing in this country. The spirit of monopoly, qualified in various ways, spread from tariffs on manufactures to bounties, land grants, and special corporate franchises, to organized labor, and at length to the hitherto patient and unprivileged small land-owners, farmers, miners, and oil producers. Farm boards, debenture schemes, new and more restrictive tariffs on imports of farm and mine, mob violence to starve neighboring cities into paying higher prices, state executive lawlessness which had at last to be sternly rebuked by the Supreme Court—these have marked the spread of the cancer of monopoly through the body politic and economic of our democracy.

Our inherited English law in respect to the private ownership of subsurface mineral wealth (as of riparian water rights in desert regions) is an astounding anachronism. It originated in a land of different geologic conditions and in an age ignorant of the technological developments of the past century. The discovery of most minerals was until recently the chance reward of unscientific prospecting. The commercial possibilities of petroleum were unsuspected until 250 years after English colonization of North America. Our wealth of public lands continued until forty years ago to be almost given away with the purpose of getting the surface soil swiftly into the hands of "actual settlers." With meagre qualifications it may be said that our federal land policy for a century and a half contemplated the use of land only for agricultural and homestead purposes. All history and experience seemed to justify this aspect of small private property in land, as the magic that transforms deserts into gardens under the hand of the owner-cultivator. It was a policy of national security and public welfare, though fraud often perverted this purpose into a means of plutocratic profit.

When already a large part of the public domain had thus been alienated to private possession, there came in quick succession the discovery of petroleum uses, the development of internal-explosion gas engines, the needs of 25 million automobile owners, and the scientific exploration and exploitation of oil resources. Thus the individual owners of the surface lands were almost entirely released from initiative and enterprise in prospecting for oil and extracting it, just at the time when its value had greatly risen. They received in multitudes of cases enormous incomes without any correlative social service. The worst is not that these oil royalties are pure gifts from the community to private citizens, but that they make the private ownership of surface land in large regions a gigantic game of chance, in comparison with which the Louisiana lottery and other demoralizing gambling proscribed by the moral sentiment of the community and by law, are like playing marbles "for keeps" among schoolboys. Life is exciting when the owner of a quarter section farm worth a few hundred or a few thousand dollars may awake any morning to find himself a millionaire. The gifts of nature to the nation have been made capital lottery prizes for favorites of fortune to be sold back to the nation for many kings' ransoms. Such fruits of private property in land make a jest of the serious arguments in its usual justification. Subterranean mineral treasures should be the regalia of the state for the use and benefit of all the people.

Happily for the nation, the ownership of oil-bearing lands has been diffused among many individuals living in many states, and however much monopoly there has been in refining and marketing oil, there has been, and could be, little monopoly in the price of the crude product. Therefore, as discoveries were more rapidly made, an increasing part of this natural bounty began to be enjoyed by the rest of the people through the medium of lower prices for crude oil. Still, for a time the landowners were blissfully happy; then, a few years ago, as a result of further technical changes, came the shock of lower prices than the oil regions had become accustomed to. Investments had been made and property had been recapitalized upward in all those regions to reflect the high royalties, actual and expected. Then Satan came also, whispering to every investor in all these empires of oil to form a conspiracy for curtailing production in order to raise oil royalties to former levels. To the pure bounty which was theirs by natural scarcity they would add a great further monopolistic gain by illicit "restraint of commerce." Shades of Henry George and the worthy army of land reformers! Monopoly being in violation of existing law, a hue and cry was set up against the Sherman Act, a cry taken up by the great tribe of other monopolists having no direct connection with oil production. The combined political influence of all these interests is stupendous, reaching from nearly every state capitol up to Washington where the full power of presidential influence seems of late to have been put behind the designs of the Federal Oil Conservation Board.

In the scramble for special privilege there is no limit to sophistry and self-deception. The simplest economic terms are misused for the purpose of misleading public opinion. "Stabilization," "economic waste," "conservation of natural resources," "demand and supply," "equalizing cost of production"—whenever the honest citizen hears these terms today it is the signal for "all hands on deck, the republic is in danger." These and related terms are all jumbled together in the laws and the lawless executive proclamations of the oil producing states. The worst confusion in most of the recent discussion of the oil industry has been that between the terms "physical waste" and "economic waste." As Professor Stocking's paper and his previous writings clearly show, the remedy for physical waste is to be found solely in the unitary development of oil pools. Such a change can be effected only by the modification of state land laws, supplemented by special interstate compacts in a few exceptional geologic situations where a pool is crossed by state lines.

The Sherman Anti-Trust statute in no way makes necessary physical waste, though a stupendous propaganda has misled many honest folks into thinking it does. The phrase "economic waste" (and its synonym "production in excess of reasonable market demand") has an utterly different meaning than physical waste. It implies the need and justification of artificial limitation of production to raise or maintain market prices and profits from oil wells. Happily, the recent unanimous decision of the United States Supreme Court in the Oklahoma Oil case, seems pretty clearly to observe this vital distinction. As I read this decision it seems to be one of the most satisfactory expressions of opinion ever given by our highest court in a case involving a large economic issue. I go further in this view than does Professor Stocking, who

qualifies his otherwise favorable comment by declaring that the decision involves the "fallacious assumption that market demand for crude petroleum is a fixed quantity." Such an assumption, if it were made, would, as he says, be without "logical foundation in either fact or theory"; but I can find no phrase in the decision warranting this interpretation. The only phrases in the Oklahoma law or in the Court's opinion that seem capable of carrying such an assumption are "economic waste," and "reasonable market demands," but these terms are repeatedly characterized by the Court as "of uncertain and doubtful meaning," and "so vague and indefinite . . . as to be really no standard at all." Because of the defects in these terms the Court overthrew, as unconstitutional, section nine (providing a penalty) and plainly implied that it would have done the same with section two (with its special emphasis on market demand and "actual value") if the Court had felt called upon to consider that section.

I should like to emphasize even more strongly than does Professor Stocking the contradiction in linking restrictive tariffs on the import of such an exhaustible natural resource as oil with a pretended interest in real national conservation. The obvious effects of such tariffs is the more quickly to exhaust our limited unmined reserves. Free import of crude oil and a substantial excise tax on domestic crude oil production would be the more consistent conservation program.

I would add this brief disclaimer on behalf of those economists who, like myself, still hope to rescue capitalism from the snares of monopoly. They hold no discredited laissez faire philosophy of public policy toward private business. They believe in competition socialized and regulated for the public good. It is not individuals but great associated groups of business men and giant industrial combinations which are now asking to be let alone, which are clamoring for the right to conspire in restraint of commerce, and to control the conditions of production and the prices paid by the people. This is the ominous new philosophy of laissez faire, that has begun to charm some of the impressionable brothers of our economic guild. We are now being told that each organized industrial group should be free to pursue its own monopolistic interest as it sees that interest, and by divine dispensation the result will be in harmony with the best interests of the exploited community. This is the new philosophy of laissez faire.

ROUND TABLE CONFERENCES

AMERICAN ECONOMIC THOUGHT

E. L. BOGART, *Chairman*

The general topic at this session was American Economic Thought and on this subject three papers were read: one by Professor E. A. J. Johnson, Cornell University, on "Early American Economic Thought"; one by Professor Broadus Mitchell, of Johns Hopkins University, on "The Nationalist School"; and the third by Professor Weston, of the University of Illinois, on "The Ricardian Epoch in American Economics."¹ The discussion was participated in by Professors A. D. H. Kaplan, University of Denver, and Rogin, University of California, and J. H. Hollander, Johns Hopkins University.

E. A. J. JOHNSON.—In sermons, diaries, histories, and colonial laws, there is to be found a fairly complete reproduction of medieval economics teaching. Although Machiavelli had separated politics from theology, and although Calvin had set politics (including economics) apart from moral philosophy, the American Puritans, turning back to the Scriptures and to the teachings of the Primitive Church, refused to accept this separation.

Wealth was regarded as a means whereby man might accomplish his destiny. Recurring to the medieval doctrine of stewardship, the American writers argued that God had appointed each person to fulfill certain functions and that these missions more or less wealth was necessary. Acquisition was sanctioned by divine law since God had endowed the earth with wealth and intended that man should use it. But since wealth was a loan from a gracious deity, this divine loan must be carefully husbanded. Proper use of wealth would produce social peace and happiness and wealth would then be one of the means of achieving salvation. The Christian doctrine of duty gave the key to the use of wealth; temperance, prudence, and charity must guide men in their wealth-using activities.

Inequality had its origin in sin. In the original state of innocence, men had lived in common. But avarice ruined this blissful communism which was only practicable in a society of ideal men. Yet avarice, which had destroyed God's intended communism, was not wholly to be condemned. Reiterating a Christian version of Aristotle's objections to communism, the American writers pointed out that private ownership quickened industry, minimized contention, and maximized economic well-being. Moreover, with inequality of possession, there was correlated inequality of social responsibility. Each was steward and each must perform his duty.

But the individual could not be trusted to perform his duty faithfully. For this reason, government must exert constant surveillance to insure that no one imperilled the economic stratification which arose from the doctrine of stewardship. The consumption of wealth was, therefore, the chief concern of early economic theory. Wealth-getting was not idealized; it was relegated

¹ To be published in the March, 1933, issue of the *American Economic Review*.

to a utilitarian position and subordinated to spiritual activities in the general scale of values.

But the body of medieval thought which is to be found in the writings of both New England and Southern writers in the seventeenth century did not stand alone. Into it was worked a large number of secularized ideas of the sixteenth and seventeenth centuries. In some cases, a fairly reliable doctrinal genealogy can be traced. We know, for example, that William Bradford of Plymouth Plantation possessed a copy of Bodin's *Republic*. Bradford's own experience with common ownership at Plymouth gave him great faith in Bodin's work for in it was contained a reiteration of Aristotle's objection to communism.

Of the sixteenth and early seventeenth century writers who, in addition to Bodin, influenced early American economic thought, Thomas More, Calvin, Molinæus, Grotius, and Hobbes, seem to have been the most important. The persistent belief that a colony could provide a place of refuge from economic distress was a popular idea in Europe ever since More had drawn his imperishable picture of Utopia. In the colonial literature, as in the writings of More, the argument is made that less wealth is necessary in a new colony because wants will be simplified and because all will be employed.

Like his medieval predecessors, Cotton Mather attempted an interpretation of Luke VI: 35 to guide him in his attitude toward usury. But unlike his predecessors, Mather came to opposite conclusions contending, as Salmasius, Molinæus, Calvin, and the English critics of Thomas Wilson had done, that the Scriptures did not forbid the taking of interest but only such usury as violated Christian charity.

The influence of Grotius is no less evident than that of More, Bodin, or the critics of the medieval prohibition of usury. Whereas the English mercantilists of the first half of the seventeenth century repudiated Grotius and especially his doctrine of *mare liberum*, the early American writers rested their whole case for taking up land in America on reasoning which was either drawn from Grotius or was, in any case, similar.

These illustrations indicate how contemporaneous ideas were worked into a body of reactionary medieval thought. But in the continual modification of economic thought, these borrowed ideas seem to have had less influence than the American environment. The regulation of wealth-getting and wealth-using in terms of a medieval arrangement of economic classes was from the beginning impossible to administer. The rise of wages caused by a scarcity of labor, soon made meaningless a resuscitated medieval doctrine of "fair wages." Efforts to make profits a measure of the extent of improvement which the business man had accomplished went the way of all flesh. The secularizing influence of the frontier was more important than the secularizing influence of European philosophy.

Since the American colonies were offshoots of the commercial ambitions of England and Holland, colonial thought could not escape the influence of contemporary mercantilist thought. But whereas trade was sometimes eulogized as the "blood and life of a commonwealth," the American writers were apathetic at the best, and frequently hostile to European mercantilist an-

bitions. This colonial indifference or hostility to European commercial policy did not, however, mean that American economic thought was not influenced by contemporary mercantilist ideas. Borrowing not only the general theory of commercial regulation but also the details, the early American colonists attempted meticulous control of colonial trade. Gradually the elements of a colonial variety of mercantilism is to be discerned.

The eighteenth century brought still another stream of ideas which was to be mingled with the curious medieval-mercantilist blend of the seventeenth. Benjamin Franklin's contacts with Quesnay, Turgot, Mirabeau, and Du Pont de Nemours led him to accept physiocracy and led him to recast his whole system of economic thought. Such an economic philosophy fell upon willing ears for in a country which was primarily agricultural, the thesis that land was the source of wealth seemed self-evident.

Thus in the colonial era, medieval survivals, selected mercantilist ideas, and a borrowed physiocracy were modified and combined. These streams of thought were like gases in a retort while the American environment provided the laboratory conditions under which they were intermingled. Each disappeared as a separate element; all were retained in the admixture. If we are to understand the striking differences between American and European economic thought in the nineteenth century, we cannot disregard the colonial background. The ethical ideas concerning economic conduct, the modified mercantilism, the borrowed physiocracy; all these elements may seem small and insignificant. But if we re-appraise the nineteenth century, institutionally and intellectually, these factors re-emerge with new significance.

BROADUS MITCHELL.—Of this group, embracing Hamilton, the Careys, Raymond, List, Cardoso, Ware, Niles, Phillips, E. P. Smith, Rae, it may be said that they form a school of thought, which was distinctive, creative, and influential. In spite of important differences between individuals, there was a remarkable unity of doctrine on the whole. Their influence, in development of theory and the application of principles, is readily traced both in this country and abroad; their practical proposals took form in protective tariffs and internal improvements both in America and on the Continent of Europe.

They were original in stressing the relativity of economic principles. The evident potentialities of young America prompted dissent from the pre-occupation of the English Classicists with diminishing returns, and suggested that the nation, as an economic entity, thrust itself between the individual and the world of individuals, demanding that it be brought to maturity by the deliberate measures of government.

The American nationalists followed an inductive method. They were in large part men of affairs, reflective and alert to their insistent and changing environment, rather than scholars trained to any philosophy. They did develop, of course, a theory, but this had its origin in expediency. In their thinking, *a priori* concepts were notably lacking. The extent to which events were their teachers appears in the shifting character of their advocacies as years passed.

It is hardly too much to say that in the minds of the classicists the economic cards were stacked against mankind. Nature was grudging in yielding from her limited stores, and man's contrivance must occupy itself with making insufficient goods go as far as possible. The American nationalists, on the other hand, found themselves on a new continent, where nature was generous and free land was superabundant. Moreover, they were children of the industrial revolution, and had the greatest confidence in the blessings of science and invention. If diminishing returns ever did threaten to set in, human ingenuity would easily be equal to the task of postponing indefinitely the day of lowered living standards. Europeans understood the division of labor, but the Americans, seeing a small population presented with enormous opportunities, went further and developed the theory of the association of labor. Theirs was not the task of acquisition, but of preparation. They were not so much interested in goods as in economic power. Present needs were easily provided for; an enlarged capacity for production and enjoyment was the objective which beckoned them.

Concerned less with private wealth than with public resources, the nationalists considered themselves the advisers of statesmen. They were political economists in the true sense of the term. All government in America, but more specifically the federal government, was in a formative stage, and its powers needed to be enlarged and confirmed as against the powers of the several states. The nationalists' principles of association and centralized direction were threatened by the constitutional scruples of individualists of the republican or democratic school. Furthermore, these writers lived in a country which, economically and politically, had rebelled against authority, and they were of a mind to make rather than to follow tradition and authority. Many of them, moreover, were on familiar terms with legislators and administrators, and several of them occupied official or semiofficial positions.

Some of the conspicuous doctrines and advocacies of the nationalists, after the Civil War, were perverted to private advantage, and, thus bolstered, have taken on a dogmatism which the original defenders would not approve. It may be suggested that the protective tariff is a case in point. If these writers were alive today, they might be found on the side of liberal trade principles and international co-operation, on the ground that we have been brought to economic maturity and that ultimate benefit and not instant advantage should be the object of national policy.

A. D. H. KAPLAN.—A greater part of the nineteenth century literature in American economic thought seems to have been devoted to the protective tariff than to any other single topic. This is not surprising when one recognizes how intimately the problem of economic self-sufficiency was associated with the task of nation-building. The emphasis in the early tariff arguments was upon a set of conditions in sharp contrast to those in which our protective tariff is operative today. Thus, from Hamilton to Henry Carey, prominence is given to the thesis that the rise of protected American industry would stimulate the importation of needed men and capital, while an artisan population within the country would bring the consumer market for American produce to our own shores. A new country like the United States, agreed

the tariff theorists, must meet the terms of purchase and sale that were made in the great central markets of Europe. Hence, the transplanting of a portion of the market to our own country would save the then determining item of transportation, to the producer as seller and to the consumer as buyer. Moreover, there is the all-pervading purpose, in the tariff discussion down to the Civil War, of shaping our economic policy so as to bind the loose federation of states into a union of mutually interdependent sections.

Professor Mitchell's remarks serve to draw attention to a noteworthy feature of early tariff discussion; namely, its treatment in terms of the total national good rather than in respect to the special interests of a single class. A recurrent theme is that of bringing "the anvil and the loom by the side of the spade and the plow." On this theme, at least, southerners like DeBow and Gregg make common cause with opponents like the Careys and "Pig Iron" Kelley. The opposition of the American national school to classical British economics was accompanied by a realization that economic policies are not equally applicable to all stages of economic development. Even the most ardent advocates of economic nationalism and protectionism in our early literature intimated that when the national economy had attained a more advanced and more stabilized economic character a less aggressively defensive economic program might properly ensue. In these respects the early literature on economic protectionism, dwelling upon the problem of speeding up our economic development, has little in common with the present protectionism of a nation which has deemed it necessary to check immigration and which possesses the largest national surplus of exportable capital.

LEO ROGIN.—History, says Professor Johnson, citing Knies, gives us an account. But, of course, an historical context may give rise to as many accounts as there are interests and points of view to give direction to research, make selection from the welter of facts and endow the exposition with a measure of unity. Dr. Johnson's paper represents the genetic approach. He seems to be interested primarily in relating American thought to the environment in which it emerged as well as to its intellectual antecedents. We agree with his emphasis on the former. It is possible that toward the end of his paper he overemphasizes the influence of foreign intellectual antecedents on American economic thought. The pragmatic impulse behind most social theorizing has a way of directing men to the rediscovery of intellectual expedients.

We suspect the inadequacy of characterizing the vigorous deprecation of money chasing by the American writers of the seventeenth century as a revival of medievalism. We suggest that an attempt be made to relate both the foregoing and the condoning of the taking of interest to the ideology of Protestantism. In that way much light may be thrown on the celebrated controversy between Tawney, Sombart, and Max Weber, among others, on the subject of religion and the rise of capitalism.

Dr. Mitchell's paper appears to me to be a good illustration of Croce's dictum that when history rises above the level of the chronicle it is inevitably the expression of a vital interest in the present. We hazard the opinion that it is Dr. Mitchell's realistic, practical reaction to his economic environ-

ment and his impatience with laissez faire that has guided his choice of subject and, in a considerable measure, influenced his interpretation. We recognize the greater vitality of the members of the "American Nationalist School" as compared with the American exponents of the classical tradition prior to Francis Walker. But we insist that sympathy with the practical program of a group of theorists should not blind us to deplorable lapses of intellectual performance. A conception of natural laws decidedly more naïve than that of the English classical economists and the uncritical use of physical and biological analogies, for instance, hardly qualifies Henry Carey, "in many ways the leader of the [nationalist] school" as a practitioner of the inductive method. To characterize the group as institutionalist is merely to increase the murkiness of the penumbra which surrounds that sufficiently ambiguous category.

J. H. HOLLANDER.—The group of papers to which we have just listened seem to me notable in aggregate as indicating the growth of interest in an area much too long neglected. Professor Johnson's scholarly survey illumines the economic strain in American seventeenth and early eighteenth century thought, heretofore depressingly obscure. As to Professor Mitchell's brilliant paper, I trust that it will not appear in bad taste if I say that he has given us definite hostage of larger things to come. To Professor Weston's review my reaction is primarily to recall the various implications of the adjective "ricardian." Professor Lowenthal has written of "The Ricardian Socialists"; Francis A. Walker referred to himself as a "Ricardian of the Ricardians"; Marshall's synthesis evoked Ashley's gibe "The Rehabilitation of Ricardo"; the most brilliant single piece of work of the lamented Simon N. Patten is to my mind his paper on "The Interpretation of Ricardo"; finally it was to John B. Clark's appreciation that I owe my own interest in the great English economist. In each of these uses "Ricardian" was applied to a different phase of influence. Perhaps the explanation is that a gem of first water has many facets. Beyond these brief words, my only comment is that Professor Weston has inadvertently quoted me only in part. What I have said of Clark is: "In the inveterate quality of his reasoning, in the resistless force of his penetration, in the logical symmetry of his conclusions there is something reminiscent of Ricardo."¹

¹ "John Bates Clark as an Economist" in *Economic Essays Contributed in Honor of John Bates Clark* (New York, 1927), p. 4. It is interesting to compare Professor Weston's survey throughout with this paper, and with my article on "American School of Political Economy" in *Palgrave's Dictionary of Political Economy* (ed. Higgs; London, 1926).

THE FORMATION OF CAPITAL: MEASUREMENT AND RELATION TO ECONOMIC INSTABILITY

ALVIN H. HANSEN, *Chairman*

The following paper was prepared for this session, although it arrived too late to be presented. Informal discussion brought out many additional points but no record was kept of this discussion.

DAVID FRIDAY.—The line of cleavage which runs between that part of the national income spent for the acquisition of durable things which add to the stock of our national wealth, as against that which is spent for goods and services which are used up currently in maintaining our standard of living, has long been recognized as a most important distinction in our industrial process. Political economy has concerned itself with the problem from the very inception of the science. Yet we have, up to this time, no satisfactory statistical determination of the division of income as between these two categories of capital formation and consumption.

In the earlier history of the science, and especially during the rapidly evolving industrialism of the nineteenth century, it was the scarcity of capital which furnished the setting for the problem. The economist and the public financier were continually preoccupied with ways and means of increasing the supply of capital. Every proposal of social amelioration, every tax law, was scanned with a view to discovering its effect by way of discouraging or in any way lessening capital formation. Few accusations against any legislative project were more potent than this—that it would dry up the investment funds of the nation.

Of late years, and especially during the present world depression, the whole subject has come into great prominence once more. But the emphasis has been shifted. Writers have less to say about the amount of capital accumulation than about the lack of equilibrium between savings and investment. In America we hear continually assertions of overextension of facilities for producing goods. There is hardly a single field of industry which does not give the banker, who is the purveyor of an important part of the community's capital, concern because of the overextended state of its equipment. Even agriculture, which has for this country at least succeeded in answering that century-old prayer, *Da nobis panem nostrum*, finds that while the prayer is still repeated every morning, it is continually accused of having brought its troubles upon its own head by overexpansion. Every raw material producing industry is being assailed for the same reason. The like is true of manufactures, transportation, housing, and the construction industry generally. Economists and financial statisticians are continually spying upon industrial process with a view to detecting an undue rate of activity in the production of durable capital goods and in the accumulation of inventories. Even the investment of our capital abroad is criticised bitterly for its volume.

We have come to realize, finally, that the maintenance of balance between production and demand, and the stabilization of employment, cannot be accomplished unless the process of capital formation can be freed from

those wide variations which it now manifests. For it is in this branch of our productive activity that the widest swings occur. Before we can go much further in solving this problem of economic stability which besets us so sorely, we must have more precise information about the volume, composition, and fluctuation of capital formation.

Any act which alters the stream of production as a whole in favor of durable goods as against short-lived goods and services is an act of capital formation. The fundamental nature of the process of capital formation is, therefore, not to be found in the accumulation or storing up of stocks of goods or in the hoarding of money. It is to be found rather in a decision to direct the productive forces of industrial society to one type of creative activity rather than another. It follows from this definition that the accumulation of capital in a given industrial society during any period consists of all the goods which have been produced and not yet consumed. The accumulation of capital in any nation throughout its existence is represented by its whole stock of wealth and goods which have been acquired by its industry. If one is not dealing with a closed and isolated industrial order, but with a modern nation which has normal international financial relations, its capital formation during any given year will consist of:

(1) Durable goods produced within the year which, because of their very nature, would not or could not be consumed within the year.

(2) Increases in the inventories of consumable goods must be added to the volume of more durable goods brought forth; and decreases in such inventories must be subtracted.

(3) The sum of (1) and (2) above must be increased by the net amount of capital invested abroad, or decreased by borrowings from foreign nations.

This definition of capital will offend those who still think of capital as "the products of past industry used as aids to further production." This was practically Adam Smith's definition. He even excluded houses and the like from the category because "they are still as really a stock reserved for immediate consumption as either clothes or furniture." This limitation of capital to productive equipment passed with the clarification of the concept which resulted from the controversy over the nature and necessity of interest. Once it became evident that interest was paid for the distinctive service of waiting, it was only a matter of time until it was realized that the production of any good which called for waiting contributed to the demand for capital. Since all goods whose use, either in production or consumption, required time, called for waiting on the part of some one, they contributed to the demand for capital. In short, they were capital goods, and their production was an act of capital formation.

Much time has been spent, in the history of our science, on the definition of capital; and it is not proposed to waste more here. It is clear that any statistical investigation of the process of capital formation today must be based upon a concept sufficiently broad to meet the requirements of the problem of business depression and industrial stabilization. All durable goods and all accumulation of inventories have several points of similarity. They all

involve waiting in their production and use. They all make it possible, because of their durability, to suspend production of these particular goods for some time without greatly curtailing the use and enjoyment to be derived from them. Suspend the production of food for a year and the population will starve. But the people will not go unsheltered even if no new houses are built for several years; and we would have a reasonably abundant supply of automotive transportation even though the industry were completely closed down for a twelve-month. Nearly all sorts of durable goods have become a basis for credit and investment. Here little distinction is made between the productive and the consumptive categories. As a matter of fact, the largest single source of demand for waiting is probably found in the consumption category of housing. Nothing short of a review of the entire process of production for durable goods is adequate to meet the needs of the student of business cycles and industrial stabilization. We need to know how large the flow of such products is, how it fluctuates, through what channels of trade it flows to its ultimate owner. And we need to know their value as measured by their cost to the final owner. Exact information concerning this part of the industrial process is indispensable if we are to stabilize the stream of production and employment.

At present we do not know the volume of these goods produced, nor the amount of the money income of the nation which is absorbed in paying for them. We do know that the variations in the volume of their output are much greater than those of the less durable goods which flow immediately into consumption. Thus, between the peak month of 1929 and the summer of 1932, the output of those durable goods which are included in the Federal Reserve Board index of industrial production fell 75 per cent in volume, while the other commodities declined only 30 per cent. Clearly, there is no possibility of stabilizing industry unless these fluctuations can be reduced. At the peak, the absolute volume of these two classes of products included in the Reserve Board's index was the same. At the bottom the durable goods amounted to only 40 per cent of the other class. The suspicion besets us that our credit structure has too often operated to accentuate these wide swings rather than to curb them. However, we now have no exact knowledge of these durable goods which are produced and financed annually, in terms of their value to the person or corporation who ultimately buys and owns them.

Several theoretical questions are inevitably presented in the planning of such an investigation. These deserve discussion here. One of them pertains to the line of demarcation between durable goods and consumption goods. How durable must things be to warrant their inclusion in the category of capital and to be included in the stream of capital formation? Railroads and other transportation systems, electric light and power plants, factories and their equipment, streets and highways, houses, commercial and public buildings, orchards, tile drains, fences—all these clearly belong in the category of capital. Automobiles must likewise be included. But what about furniture, including carpets and rugs; what of books? These things are highly durable. Certainly the electric refrigerator would be included; and if all of these

things be added in shall we include clothes as well, and bed and table linen?

Many of us would probably be inclined to balk at the inclusion of house furnishings and personal clothing. But there can be little doubt that they affect in an important degree the demand for durable goods, and so the process of capital formation. At the present moment there is stagnation in the furniture trade just because furniture is durable; and a large amount of it was produced and sold during the recent period of prosperity. The same thing is true of custom tailoring for men; and of carpets and rugs and of many other lines of house furnishings. It is probable that at the end of a period of moderate recession such as we suffered in 1924, and in the early stages of the succeeding revival, the amount of money capital available in the investment markets of the country was increased by the fact that durable goods accumulated in the hands of consumers were not yet worn out. This enabled the public to make savings for investment, for bank deposits, or for payment of debt, which could not have been made had it not been for these accumulated inventories which remained from the previous period of prosperity.

Germany affords a practical example during the years 1924-25. There the small volume of these durable goods produced and purchased for several years previous led to a great exhaustion of *Hausvorräte*. When revival came in 1925, the scarcity of investment funds continued for many months, largely because the Germans invested their first savings in stocks of these goods. These products constitute one of the most important causes of modification in the income stream; and this factor of variation grows more potent as the standard of living for the great mass of people rises. It should be included in the category of capital goods.

Another problem of theory has had practically no consideration from American scholars. It is the treatment of depreciation. A large part of the durable goods currently produced is said to be for replacement of other units of capital which have been discarded because of wear and tear or obsolescence. Is the entire stream of durable goods which results from production to be considered as capital formation; or must a deduction be made for that part which represents depreciation? The importance of the question, quantitatively considered, becomes apparent when we realize that corporations deducted about four billion dollars for depreciation in 1929. This item had been included in operating expenses as a deduction from gross profits in arriving at net income. The surplus of these concerns after dividends was \$2,820,000,000. No one doubts that this surplus item constituted savings and was available for the purchase of durable goods. But the sum set aside for depreciation was also available for this purpose. And it was almost twice as large as the surplus. All told, these corporations had over six billion dollars available for such purposes from their operation. Which of these figures shall be included as representing the capital formation of the country through corporate savings?

From the standpoint of strict logical analysis, the amount charged for depreciation and depletion represents an act of savings quite as much as does the retention of surplus. Capital is maintained, not by preservation,

out by reproduction; and every decision to produce a new unit of durable goods is an act of volition which modifies the income stream in favor of capital formation and to the ensmallment of production for consumption. Depreciation charges, while they are an operating expense, differ from other expenses in one important respect. They represent no current disbursement, as do the expenditures for labor and materials which are currently consumed. A sum equal to these depreciation charges is therefore available for new plant and equipment, either by way of replacement or for plant extension. If a power plant, or a machine in a factory, or a locomotive on a railroad is abandoned on account of obsolescence, it is not replaced by one of the old type, but by a new unit which represents the latest and most efficient development in the art. The capital, measured in money terms, remains in the balance sheet at the old figure, but the physical plant which embodies it has taken on a new and more efficient form.

Considered from this point of view, the depreciation allowance performs one of the most vital functions of savings, because it is available in its entirety for the utilization and installation of new technical developments. Such new developments have always been recognized as one of the most important sources of the demand for waiting; and the emphasis upon an abundant supply of savings derived from the fact that the new capital thus created made possible the enjoyment of the benefits of technical advancement. Even if no new savings were made out of private income for investment in our industrial establishments, these could still embody a large part of the newly acquired technical knowledge through the utilization of these funds which represent their provision.

This whole question of the economic role played by depreciation, especially when it is due to obsolescence, is a subject which has had little attention from economic theorists. There is no doubt that obsolescence is an important source of demand for new capital. In any investigation directed at measuring that demand, its role in the process of capital formation should be made the subject of study.

It should be noted, too, that the volume of capital formation in no wise depends upon the wisdom or unwisdom of its investment. It has been argued repeatedly in America that the productive facilities bought and paid for out of corporate surplus cannot be counted as capital accumulation in their entirety, for the reason that they are often unwisely invested and therefore wasted. Doubtless it is desirable to know what proportion of our annual savings is wasted through unwise investment. But these funds cannot be wasted until they have first been saved; and the waste does not occur until the savings have resulted in the formation of actual capital goods which are proven by subsequent experience to be worthless. To deny that there was capital formation simply because that capital is unwisely used merely beclouds the issues involved.

One of the reasons for agitating this subject of the statistical measurement of capital formation at this time is found in the nature of the material which has been made available in recent years, and especially by the Census of 1929. The necessary data for this inquiry, as outlined above,

have never been available for the United States until now. Indeed, it is not now available for any other country in the world. Our own census of manufactures has contained a good deal of information on the physical volume of goods produced and the value of this industrial product. Since 1919 manufacturing data have been collected and reported every second year; so that the material is fairly continuous. It covers three boom years and two years of serious or violent depression, as well as one of mild recession. The years 1919, 1923, and 1929 all enjoyed a high degree of activity in the manufacturing industry. In 1921 we suffered from a serious depression, and in 1927 a mild recession occurred. The Census of 1931 should be available within the next six months and will picture the situation in one of the major depressions of modern history. These data, covering a dozen years, must be the foundation upon which any determination of the volume of capital formation shall be built.

But for most of this period there were two difficulties in the use of these data for the construction of a picture calculated to show the flow of these goods and the amount of the national money income which they absorbed. The first shortcoming was that the census of manufactures did not distinguish between products used as materials in further manufacture (commonly called "semimanufactures") and those which were sold to the ultimate user. Many of these manufactures were durable goods; e.g., electric motors used in automobiles or electric refrigerators. To include both them and the ultimate products of which they became a part would lead to obvious duplication; yet nowhere were the items sold to other industrial users and included in other products shown separately.

This defect has been remedied in large measure by the Census of 1929. This includes a study which shows the purchase of domestic semimanufactures by other manufacturing establishments. It also shows the distribution of sales by manufacturing plants, and it reveals the sales of manufactures to industrial consumers. By analyzing this material it is possible to eliminate the duplication and arrive at the net volume of production for these durable manufactured products.

The other difficulty in using the material available previous to 1929 for the purposes here outlined is that their value was given at the factory door and not at the point where title passed to the ultimate owner for whose use they were destined. For several reasons it is the latter figure and not the former that is important. The part of the national income which is absorbed by these goods is represented by the final price which is paid for them, and not by the valuation placed upon them at the factory door. The purchase of such goods is often financed by bank credit or by the issue of securities in exchange for savings. It is the ultimate price of houses, automobiles, furniture, or railroad equipment which determines the amount of financing which will be needed. We have never known this ultimate price before, nor the relation of prices in the retail market to wholesale prices, nor the relation of either of these to the value at the factory. In the field of construction work, we have never known the ratio of the value of finished projects to the cost of the materials which

went into them. The only figure available was the price of materials at the factory door.

Heretofore we have had only indices which showed the relative volume of these durable goods produced from year to year. A summation of the value of these products to their final users was never possible. This difficulty has been obviated by the data which is presented in the census of distribution for wholesale trade and for retail trade; and by the census of construction. All three of these were taken for the first time in 1929. The publications of these new divisions of the census make it possible to ascertain the value of each class of durable goods as measured by the price which its ultimate purchaser pays for it. It will also show the relation of that price to the value at the factory door.

These durable goods should be classified into producers' goods and durable consumers' goods. Such a classification will enable anyone who objects to the inclusion of some category or other to eliminate that group from the total.

This material is available only for the year 1929. There is no telling when another census of distribution and of construction will be taken. But it should be possible to make some intelligent approximation of the value of all durable goods for each of the census years back to 1919 with the aid of the data derived from a careful study of 1929. And it should likewise be possible to carry it forward in 1931 and subsequent census years. One of the most interesting results which should be derived from these figures is the illumination which they will afford for the operations of our credit machinery. Every type of these goods gives rise to financial operations running all the way from long-term bonds to installment sales. These are all evidences of indebtedness which are purchased by the banks and which absorb the savings of the people. When once our financial community knows what it is financing, it may be able to formulate a banking and credit policy which shall help to maintain stability.

Ultimately the work here outlined should lead to the construction and maintenance of a monthly and also an annual index number for the production of durable goods. This should be compiled currently and published probably by some governmental agency such as the Federal Reserve Board or the Department of Commerce.

SIZE OF BUSINESS UNIT AS A FACTOR IN EFFICIENCY OF MARKETING

H. B. PRICE, *Chairman*

The general topic of this session is size of the business unit as a factor in the efficiency of marketing. The economies of size of the business unit although fairly well established for manufacturing industries are not so discernable in marketing. The organization for selling introduces problems of efficiency that are different from those of physical supply, and apparently costs of selling respond to the influence of size somewhat differently than the costs of handling and storing products. Price realization also relates to size of the business unit in a distinctive manner. Research in marketing has thus far neither differentiated these various aspects of marketing clearly nor pointed out distinctly the relation of each aspect to size and cost of operation; nor has as much attention been given to the factors affecting the efficiency of marketing as of manufacturing or agricultural production. A considerable body of material bearing on the problem is now available from the various public and private marketing research agencies. The object of this round table is to present some of these materials from representative fields in marketing research.

PAUL L. MILLER.—Any advantage that a relatively large-scale marketing business has over a relatively small-scale one must come from one or both of two factors. Either its unit costs must be lower, or the prices that it is able to secure for the product must be higher, or perhaps it has advantage from both of these factors. With respect to operating costs, we must grant that volume of business is very influential. The principles of large-scale production apply to marketing operations as well as to those of manufacturing.¹ In so far as the utilization of equipment and plant is concerned the cases are quite the same. Many marketing businesses have mechanical and routine operations that can be organized and performed most efficiently in a relatively large-scale unit. It is true perhaps that buying and selling operations cannot be as minutely specialized and reduced to simple routines as many other types of tasks. But in the case of many farm products that may be sold in quantity to large-scale buyers on definite specifications, selling is much less personal and more amenable to organization than in the case of many other products. It would seem to be largely a matter of training and experience together with administrative ability. If so, large-scale enterprises have a great advantage in their ability to command the highest type of service.

The price advantages afforded by volume of business are no less real if somewhat more elusive than the cost advantages. They obtain in the broad markets of farm products and particularly in the case of those commodities that are sufficiently standardized to be sold on the basis of description. In such markets sellers best able to make the commodity available in quantity and in accordance with precise quality specifications are able to secure the superior outlets. Ability to supply the commodity on such terms, other conditions remaining the same, is within limits a function of volume.

¹ Clark and Weld, *Marketing Agricultural Products*, p. 470.

The price advantages enjoyed by such suppliers must be sharply distinguished from those that may in some instances be forced from the market through some degree of monopoly control. The former price advantages result from a more economical meeting of the demand than is possible on the part of small-scale suppliers, who usually cannot cater to the same class of trade but must depend upon intermediaries for their outlets. The latter price advantage, where it can be realized, is obviously purely exploitive and predatory.

It is in the country end of agricultural marketing where marketing business units appear to be particularly undersized. In the wholesaling of farm products business units are for the most part large-scale enterprises and, generally speaking, margins are narrow and costs are low. But, in the country this is not the case. The exceptions to this are in those commodities and in those districts where farmers have co-operated to market on a larger scale and more efficient basis. Outstanding examples of such developments are the large-scale, co-operative marketing enterprises of the citrus fruit growers of California and of the poultry and egg producers of California, Washington, and Oregon. Other examples might be cited. Nearly every commodity furnishes many instances of significant steps taken by farmers to improve farm marketing. Generally speaking, progress has been greatest in highly specialized producing regions, remote from the principal market centers, and in the case of commodities that go to consumers without processing.

In the case of grain and livestock, as well as of other commodities produced widely in a general or mixed type of farming, country marketing generally is on a small and inefficient scale. Most of the farmers' co-operatives are loosely formed, and indifferently supported. For the most part they lead a precarious existence competing with local buyers. The majority of the farmers sell to local buyers, many of whom are small, independent operators. Others are representatives of packers, milling firms, or wholesale marketing agencies. These large buying agencies often buy at many shipping points scattered over a wide territory. As rural transportation and communication have improved, such buyers have extended their country buying systems and taken a larger and larger place in buying directly from farmers. They have had little trouble in either driving out the local independent buyers or making them their representatives.

This might seem to indicate that they have been able to place country buying on a much more efficient basis, and they doubtless are more efficient than the independent dealers;² yet the extent to which they can increase the efficiency of country marketing is distinctly limited. The reasons for this are first, that they cannot greatly reduce the expense of buying and handling the commodity at the point of contact with farmers. Farmers are naturally pleased to have as many bids to consider as possible. This seems very advantageous to them, and in a sense it is. Yet it makes farm buying very expensive because of duplication of effort. In numerous grain shipping localities in Iowa there are three or more grain companies represented with operators and plants where

² E. G. Nourse, *Recent Economic Changes*, National Bureau of Economic Research, Vol. II, p. 580.

one set of equipment could handle the grain at much lower cost. Cost studies of local marketing agencies reveal wide ranges of costs and close correlations between costs and volume of business.³ Yet, in the usual local market situation the business is split up among several handlers so that average marketing costs are much higher than they need to be. This seems to be the price that the farmer has to pay for having buyers carry their competition for his products down to the farm.

A second reason why the integration of local buying by central market agencies does not go far towards greater efficiency in the marketing of the products of a particular community is that such buying agencies cannot be said to widen the market for the locality. In fact where the local trade passes into the hands of a relatively few central market interests, the product of the community may be less widely distributed than formerly. Add to this possibility, the fact that the farmer in his individual capacity is far from being an expert salesman, and there can be little doubt that these developments in large-scale country buying weaken rather than strengthen his trading position.

These cursory observations of the inefficiency of local marketing point to small-scale farm selling as its chief cause. The buyers, large, and small, in the country trade cannot be held responsible for the wasteful methods of marketing evident in most localities. They are, generally speaking, not the cause of these conditions, but rather the effects. Farmers' co-operative agencies, organized in a manner that forces them to compete with local buyers, have been able scarcely to hold their own, and have not increased the efficiency of marketing. The roots of the problem lie too deep to be eradicated by reform methods that only aim to substitute one type of middleman for another. For improvement in conditions the farmers need to combine so as to reorganize farm marketing on a large-scale basis.

Much of the co-operative movement among farmers has missed the main opportunities to increase the efficiency of agricultural marketing, which lie in the handling of the commodity at the farm and at local points and in the development of efficient sales units to administer the selling of the product of a district. The farmers of a given locality need to combine on a sufficient scale to enable them to substitute large-scale for small-scale methods in the trade of the locality. Much of co-operative marketing fails to bring together the farmers of a given locality or district in sufficient numbers for most efficient local handling of the commodity. The result is that much of co-operative marketing among farmers has failed to increase the efficiency of marketing in the country trade. These weaknesses of local and regional co-operative cannot be remedied by combining such enterprises into central or even national units. Such agencies cannot remedy inadequate co-operation among the farmers themselves.

NATHANAE H. ENGLE.—In attempting to measure statistically the influence of size upon the operating efficiency of a wholesale establishment one of the first problems is the selection of a unit of size. Practically this is not a serious problem since there is little choice. Theoretically, there are a number of alternative criteria of size which should be considered.

³Clark and Weld, *Marketing Agricultural Products*, Chapter XXI.

One of the more definite of these is a unit of physical volume such as a ton of merchandise. Another method is the use of the individual sales transaction. Other methods of measuring the size of a merchandising establishment are the number of square feet of floor space, the number of employees, or the volume of sales. The last of these is the one which I have selected by a sort of Hobson's choice to measure the effect of size upon the operating efficiency of wholesale merchants dealing in manufactured goods. For most purposes the sales dollar is as good a measure as any of the others. Certainly for purposes of comparison between different establishments operating in the same year it offers a definite and easily understood size unit.

TABLE 1
TOTAL EXPENSES^a AS PER CENT OF NET SALES FOR WHOLESALE MERCHANTS IN SELECTED TRADES,
BY SIZE OF BUSINESS, UNITED STATES, 1929^a

Size Groups (net sales in thousands of dollars)	Kind of Business (Trade)							
	Drug (general line)	Dry Goods (specialty)	Electrical Goods	Groceries	Hardware (general line)	Hardware (specialty)	Paints and Varnishes	Radio Sets
Total	13.3	10.3	16.1	9.8	18.5	19.5	21.8	15.9
Under 50	17.8	13.5	21.6	13.8	24.3	27.3	28.2	26.7
50 to 100	14.8	12.8	20.1	8.9	21.5	21.9	24.0	21.1
100 to 200	16.1	10.0	18.9	9.0	20.4	22.9	22.5	20.3
200 to 300	13.7	10.3	17.9	9.6	19.0	20.2	23.8	20.7
300 to 400	12.9	9.4	17.9	8.9	20.1	19.7	22.9	16.3
400 to 500	14.2	9.0	17.0	8.7	20.4	19.4	20.5	18.4
500 to 1,000	13.6	9.7	16.7	9.5	18.7	21.6	22.0	16.2
1,000 to 2,000	13.3	10.0	15.2	9.7	18.1	18.1	19.3	14.1
2,000 to 4,000	13.1	9.8	14.5	9.6	17.9	13.6	18.0	—
4,000 to 8,000	12.8	11.6	12.5	11.8	17.3	12.3	—	—
8,000 to 15,000	13.4	12.1	—	14.8	16.7	—	—	—
15,000 to 25,000	—	—	—	—	20.8	—	—	—

After the size unit has been selected, a second problem is the determination of the best measure of operating efficiency. If by operating efficiency we mean the degree of economy with which the economic factors of production are used in performing the marketing functions, it is reasonable to assume that the money costs incurred in performing these functions roughly measure the degree of marketing efficiency. I have acted upon this assumption and have used the operating expense ratios compiled by the Census Bureau.

I have based this study entirely upon statistics which I have helped to compile while with the Bureau of the Census. The facts have been assembled and summarized from a special series of trade studies for eight groups of wholesale merchants, each of which carried a different line of manufactured goods. For the most part these establishments constitute a homogeneous group of merchants operating in much the same way and performing most of the wholesaling functions. In addition, I have made a special study from the schedules of 2,418 general line wholesale merchants in the grocery trade in which I attempt to measure the effect of size upon a number of specific marketing functions as well as the combined total of such functions.

A few conclusions may be drawn from the statistics shown in Table 1 which covers the total expenses for eight trades. Without exception, the very small-scale establishments in all the trades reported relatively high operating expenses. Aside from this one similarity, the different trades were affected variously by size of business. In four trades, electrical goods, hardware spe-

TABLE 2
NUMBER OF ESTABLISHMENTS AND NET SALES BY SIZE OF BUSINESS, WHOLESALE MERCHANTS—GENERAL LINE GROCERS, UNITED STATES, 1929^a

Size Groups (net sales in thousands of dollars)	Number of Estab- lishments	Net Sales	Per Cent of Total Net Sales
Total	2,418	\$1,708,437,660	100.00
I 100 to 500	1,335	376,274,075	22.03
II 500 to 1,000	671	471,712,411	27.61
III 1,000 to 3,000	351	548,896,540	32.14
IV 3,000 to 8,000	55	242,400,418	14.18
V 8,000 to 25,000	6	69,154,216	4.05

cialties, paints and varnishes, and radio sets, the total expenses expressed as percentages of net sales declined with minor variations as the size of the business increased. A large scale of operations is not always best, however. In two trades, dry goods and groceries, total expenses declined from 18.5 per cent and 13.8 per cent of net sales to 9.0 per cent and 8.7 per cent respectively as size of business increased to \$400,000-\$500,000. As the size of business increased thereafter expenses increased to 12.1 per cent and 14.3 per

TABLE 3
EFFECT OF SIZE ON EXPENSE AND OPERATING ITEMS, WHOLESALE MERCHANTS—GENERAL LINE GROCERIES, UNITED STATES, 1929^b

Size Groups	Per Cent of Net Sales							
	Total Expenses ^a	Total Wages ^d	Direct Selling Expense ^a	Interest Paid ^f	Rent Paid ^f	Credit Sales ^f	Returns and Al- lowances ^f	Inven- tories
Total	9.83	5.56	2.57	0.49	0.52	85.99	2.12	14.48
I	9.03	4.72	2.49	0.53	0.68	81.75	1.70	14.01
II	9.48	5.29	2.43	0.49	0.54	86.20	1.87	14.02
III	9.50	5.44	2.39	0.49	0.46	86.15	2.32	14.10
IV	11.08	6.55	2.91	0.46	0.41	91.90	1.70	14.70
V	14.83	9.51	3.98	0.43	0.46	85.31	3.05	18.23

^a *Census of Wholesale Distribution, Trade Series.* The number of establishments for each group constitutes all of those reporting to the census bureau—practically all in the United States.

^b *Census of Wholesale Distribution, special tabulation.* No establishments from communities of less than 10,000 people and no establishments with sales below \$100,000 per year.

^c Exclusive of net profits.

^d Includes salaries of hired employees, but excludes salaries of proprietors and firm members.

^e Includes salaries, commissions, bonuses, and expenses of salesmen for only those establishments reporting salesmen.

^f Percentage based upon statistics from only those establishments reporting these items.

not respectively for the establishments with sales between eight and fifteen million dollars. In the two remaining trades the evidence is less conclusive. However, expenses showed an increase in the largest size group.

Few if any generalizations are indicated by the statistics in Table 1. If it were not for the dry goods specialty wholesalers whose costs increased in the larger brackets, a rule for specialty wholesalers might have been suggested to the effect that costs vary inversely with the size of the business. The more reasonable explanation appears to be that sales had not been pushed far enough by the four specialty groups to incur increased costs. The evidence, therefore, as to the influence of size of business upon wholesale merchants as a group is not conclusive. For a few specific trades, however, such as groceries, it seems clear that large-scale business is not the most efficient.

In order to determine the incidence of size upon specific marketing functions, I prepared a special tabulation for 2,418 grocery wholesalers. (See Tables 2 and 3.) Summarizing the facts brought out in these tables it appears that for wholesale merchants in the grocery business, the total costs of performing the marketing functions vary directly with the size of the business after sales have reached a minimum of \$100,000 per year. Expenses incurred for labor also increase as the size of the business increases. Selling efficiency as measured by the costs of performing the selling function decreases as the sales volume becomes larger. On the other hand, efficiency in performing the storage function as measured by rent expenditures varies directly with sales volume and is greatest with sales between \$3,000,000 and \$8,000,000. In so far as interest payments are a clue to efficiency in performing the function of market finance the large-scale houses seem to have the advantage. The granting of credit, however, which also reflects the finance function, does not indicate any very definite relation to sales volume. The two remaining indexes of marketing efficiency, returns and allowances and inventories, indicate that the very large establishments are least efficient.

In conclusion I believe that the facts brought together in this paper indicate: that a very small scale of operations for wholesalers of manufactured goods is less efficient than a somewhat larger scale, that there is a fairly wide range in which size of business has very little measurable effect upon operating efficiency, that there is a maximum size in some trades and possibly in all beyond which operating efficiency diminishes and, finally, that the incidence of size upon marketing efficiency is not uniform for all of the marketing functions.

W. H. S. STEVENS.—In manufacturing industry based upon the Federal Trade Commission's intensive study of plant cost by size of plant in the bread industry for a period of years, we may conclude, first, that though both price (as indicated by sales realization) and cost per unit decline as the size of plant increases, costs decline more rapidly than sales realization and net profit per unit tends to rise. Second, that if the bread results are typical, multiple plant operation does not reduce the cost of producing and selling for plants of the same size.

In the field of retailing as in the field of manufacturing the effect of size may be examined from the standpoint of size of the retail store or since the

growth of large chains, from the standpoint of size measured by units operated.

For the effect of size of establishment, the most comprehensive figures available are those of the Harvard Bureau of Business Research. This organization has compiled as percentages of sales, the gross margins, operating expenses and net profits of several kinds of business for varying periods of from one to ten years or more.

The most comprehensive of these sets of figures is in the department store field where the figures cover the eleven years, 1921-31. The larger stores average substantially higher gross margin, operating expense, and net profit percentages on sales, the higher net profits, of course, arising from the fact that the gross margins of the larger stores are relatively higher as compared with the operating expenses than is true of the smaller sizes of stores. Retail shoe stores show the same tendency as department stores. Excluding the smallest of the grocery size groups, the larger sizes of stores usually show the highest gross margins, as high or higher operating expenses than the smaller stores, and the largest net profit percentages.

All three of these retail lines, it will be observed, differ from manufacturing in showing higher operating expenses for the larger establishments. In jewelry retailing, however, an entirely different tendency appears and the results more closely resemble those in manufacturing. Here, both gross profits and operating expenses tend to decrease with the size of store, the latter figure somewhat more than the former, with a consequent increase in net profit for the larger establishments. Automobile tire and accessory dealers show the same tendencies as jewelry retailers though the figures in this case cover only the year 1928.

Summarizing the results of the Harvard studies, therefore, it appears possible to conclude: that in groceries, department stores, and shoes, the tendency is for gross margin, operating expense, and net profit percentages of sales to increase with increase in the size of store, a greater increase in the margin than in operating expense accounting for the increased net profit; that in jewelry and automobile accessory retailing, gross margins and operating expenses both tend to fall as the size of the establishment increases, the net profit, however, tending to increase because of a lesser decline in the gross margin than in the operating expense; operating expenses do not therefore tend to decline generally in retailing with increases in the size of unit as in manufacturing but in both, net profit tends to vary directly with the size of the particular manufacturing or retailing establishment.

It is by no means certain how far and to what extent variations of operating expenses with the size of establishment are actually dependent upon the size of the store involved. The reason is that there is a considerable volume of data in both the Harvard Bureau and the census figures indicating that operating expenses tend to vary, to some extent, directly with the size of the city, particularly when comparisons involve very large and very small cities and it appears obvious that at least within certain limits the size of store will vary with the size of the city.

The Harvard Bureau of Business Research has tabulated its department

store figures for 1929 in nine size volume groups. In these figures, the variations in the gross and net profits and operating expenses by size of city appear to be appreciably greater than by size of store, thus seeming to lend support to the conclusion that the size of city is of greater importance than the size of store in producing variations in financial results.

Time has been lacking to permit extensive computations from census figures necessary to any generalized statement as to the effect of size of city. I have, however, compared the per cent of operating expense to sales for ten kinds of business in all cities in Pennsylvania of under 10,000 and 10,000 to 80,000 population with those for Allentown (92,000 population), Scranton (148,000), Pittsburgh (669,000), and Philadelphia (practically, 2,000,000). For most of these ten kinds of business, cities of 10,000 to 80,000 population commonly show higher operating expenses (proprietors' salaries being included by the census method of average wage of full-time store employee) than those of under 10,000. The average operating expense percentages for these two smaller sizes of cities in Pennsylvania, moreover, are also usually lower than those for any of the four larger cities mentioned, in each of the ten kinds of business, though exceptions occur particularly in grocery, grocery and meat, and variety. At this point, however, the effect of size of city becomes less apparent. Allentown, though under 100,000, is higher than Philadelphia in six of the ten kinds of business while Scranton is likewise higher for a majority of the groups than either Pittsburgh or Philadelphia. Pittsburgh also shows a higher operating expense ratio than Philadelphia in at least six of the ten kinds of business.

This brings us to a consideration of the difference in the operating results of single and multiple unit (chain) stores. Census figures of the per cent of operating expenses to sales, for both chains and independents, are available for twelve kinds of business. In every one of these types of business, with the exception of grocery, department stores, and women's shoe stores, the chains show a higher ratio of operating expenses to sales. The figures of gross and net profit, of course, are not shown by the census.

Although multiple unit operation in retailing apparently leads to higher ratios of operating expenses to sales, therefore, as compared with unit operation because of differences in functions, this does not necessarily mean that the gross margins or operating expenses involved in getting goods from the producer to the consumer are higher through the multiple unit operations of the chain. Dr. N. C. Engle, formerly of the Wholesale Division of the Census of Distribution, has furnished me with certain computations in which the census independent, wholesale, and retail figures of operating expenses are combined, for five lines, clothing and furnishings, drugs and drug sundries, groceries and food specialties, meat and meat products, and house furnishings. In all these lines except the last named, the combination wholesaler-retailer operating expense percentages exceed those of the chain. Dr. Schmaltz arrived also at the same conclusion for groceries in an article in the *Harvard Business Review* combining the results of the Harvard Bureau's studies of grocery chains with their combined figures for grocery wholesaling and retailing. Offsetting this to some extent, however, is the greater service of

the independents who more generally give credit and delivery to consumers.

One further point in connection with the effect of size in retailing concerns the relation of the number of retail units to operating expenses, gross margins, and net profits. Harvard Bureau figures are available for 1929 for all three of these items in the case of shoe, drug, and grocery chains though for only three size groups. Because of the small number of groups, the results are not entirely satisfactory. There is some indication of a decrease in gross profit with increases in the number of units in shoes and drugs with a better indication of an increase in this item in groceries. Operating expense increases with size in groceries but declines in shoes and drugs while net profit increases in groceries and drugs and, with some qualification, in shoes.

The census figures on this point are for operating expenses only. I have used twelve types of business in this comparison. In only three of these, office appliances, variety, and possibly hardware chains, is there any tendency for operating expenses to increase with the number of stores operated. Drug and shoes are, in my judgment, indeterminate though the tendency, if there is any, seems to be for the expense to decline with increases in the number of stores. Department stores I would also class as indeterminate. The remaining lines, women's apparel, furniture, auto accessories, grocery, combination grocery and meat, and possibly installment jewelry show a downward trend with increases in stores operated. The figures are open to some question because in drugs and the two grocery groups, warehousing and other overhead is not included for the large chains operating warehouses. This might easily affect the showing for the larger chain groups.

As in the case of unit stores, however, there are certain indications that operating expense variations of chains according to the number of stores operated may be due no more or perhaps even less to the number of stores involved than to their location. Chain operating expenses by size of city are available in the census data for only four kinds of business, grocery, combination grocery and meat, shoes, and drugs. In each case, there is an appreciable increase in operating expense with the size of city which is especially pronounced in shoes and combination grocery and meat.

Drugs present the only case in which the census has to date broken down the figures by size of chain within the size of city and though the figures are only for cities of over 100,000 and under 80,000 population, the rather decided differences between them would tend to confirm the view that size of city is a factor of at least equal importance with the size of establishment.

The fact that the variations of expenses are so great for drug chains of the same size operating in cities of different size combined with the fact that in cities of the same size there are still important variations in expenses for different sizes of these chains points to the conclusion that the effects of either size of store or size of chain upon gross margins, operating expenses, or net profits cannot and will not be thoroughly understood until size volume figures are analyzed according to the population of the cities in which they are operated. The Harvard Bureau must be given credit for recognizing that the size of city was an important factor in operating results and they have in the past presented a number of analyses of this character

along with those by size of establishment. An analysis of their past results for unit stores by size of establishment in cities of varying ranges of population would be extremely valuable. And the same applies to their wholesale figures. Such a composite breakdown is apparently not practicable from the published census figures, though the information necessary for it was obtained. It would seem more than worth while in any subsequent census to publish either such a breakdown or the data for making it.

W. J. DONALD.—The merger movement is not over and once financial markets become favorable to security flotations, we may well expect it to return in considerable volume. Meantime, the kinds of mergers that are taking place, for the most part, are the purchase of plant, goodwill, patents, and business of small companies by large companies, and the purchase of the securities of a small company by a large company, often conditional on net profits.

The marketing advantages and economies to be secured from mergers vary widely according to the class of merger or combination of classes of merger. Among those which have been generally assumed are the following: stabilization of price in highly competitive markets, standardization of products in the interests of a lower price and a lower cost of production from large-scale continuous operations, reduction of expense of advertising, reduction of the sales force, reduction of the total number of branch offices and branch office expense, improvement in the quality of marketing staff service available in the marketing of all products in the line, the rounding out of a family of products, reduction of sales administration overhead, reduction of sales traveling expense, reduction of transportation charges through elimination of cross shipments, strengthening of the position of the company in reciprocal selling, strengthening of the position of the merged company in relation to large dealers, especially department stores, chains and syndicates, reduction of the number of drops and the amount of distressed merchandise once the initial stages of the merger are completed, partial elimination of competition from inferior products, advantages of more adequate financing of purchases, especially through an allied installment credit corporation, increased security for trade marks, making possible a stronger policy of selective distribution.

While not all of these marketing advantages of mergers apply to all mergers and while many of the plans that could have been realized have not functioned effectively in many cases, and while the marketing aspect of mergers has been most neglected, nevertheless, it is my opinion that the possibilities are quite as great as have been claimed and that they will yet be realized if sound marketing policies are developed for each individual situation.

SESSION ON FEDERAL RESERVE POLICY SINCE 1926

RESERVE BANK POLICY AND ECONOMIC PLANNING¹

By HAROLD L. REED

Cornell University

Of the numerous and varied products of the existing depression, the most significant, from the standpoint of future governmental structure, is the intensification of the demand that this country should immediately create new agencies to be vested with economic planning responsibilities. Despite the fact that it has long been orthodox doctrine to hold that a large degree of community interference is required to permit the competitive system to function equitably, despite the tendency to declare that more and more industries are vested with a public interest, despite the tremendous increase of regulatory boards and commissions in all branches of government, it is becoming increasingly popular to urge that private enterprise should be subjected to still more direction and control. Otherwise, we are informed, the only alternative is Sovietism, and Sovietism must be a dreadful state. For, if it were not, we would not be willing to contemplate so many vexatious devices to avoid it.

Many of the most widely discussed of recent plans to secure the more harmonious utilization of our material resources are confessedly councils of despair in that their proponents do not, at the present stage, profess ability to refute even the most superficial of objections. Despite the wide and varied experience out of which it grew, and the loftiness of purpose of its author, the Swope plan cannot guarantee any means whereby outputs can be properly adjusted to consumption demand unless the trade association is given power to restrict arbitrarily the entrance into the industry of new competing enterprises. As for a goodly portion of the plans to set up national economic councils, the thinking has admittedly not gone far beyond the stage of organization and structure. It is merely hoped that much good might result if provision were made for the formal and regular gathering together of representatives of important economic interests on a council definitely charged with the responsibility of giving advice to legislative and administrative authorities. So far as I am aware, no one has yet advocated that such a

¹ The reader is requested not to assume in advance that the writer's thesis will be that the Reserve banks should take unto themselves such planning responsibilities as have been delegated to national councils in several European countries. The writer intended to argue that by the wise exercise of existing credit powers the Reserve banks could lessen the necessity for such planning bodies. If the writer does not make this position clear he is open to adverse criticism on the ground that the Reserve banks are not so constituted, administratively, as to justify the delegation of detailed economic planning responsibilities to them. If the exposition is consistent with his intention, however, such criticism would be a misinterpretation of his paper.

council should be substituted, with power to enact legislation, for one of the houses of the federal Congress, both of which are now organized on the basis of geographical representation. The present program is to create new agencies of control, not to destroy or systematize old.

In the field of credit, particularly in that of investment banking, there are also pressing demands that we graft on to existing agencies new boards of control or advice. It is advocated in several current proposals that, without the consent of a credit planning commission, new securities could not be issued or distributed; and that licenses to appeal to the country's investors should be granted only after the formulation of a plan, designed to keep the various industries in step and in harmony. The unescapable difficulty that partiality could not be avoided in allotments is held to be a minor evil as compared with the consequences of proceeding further with existing methods of procuring funds from investors.

In estimating the probability that such new agencies would operate successfully it is necessary to inquire whether they would possess advantages over existing planning organizations. I do not believe it special pleading to argue that in the credit field we already have a planning agency with broad and extensive powers. Central banking systems are the products of years of experience and of constant adaptation of their operations to the requirements of particular economic situations. For decades they have been the repositories of a wealth of information proceeding from business contacts and operating experience. They deal in the vital fluid of competitive enterprise credit—and yet they have generally escaped responsibility for making special and particularized decisions. It is true that this observation might be held to be inconsistent with the fact that our Federal Reserve banks are required to accept or deny specific discount applications by member banks. But as a matter of procedure most such decisions are based on rules of thumb; and it is furthermore generally true that the initiative of our Reserve banks in conducting open market operations is a decisive factor in determining whether discount applications will be made by member banks in large or in small volume. At any rate, it is a function of the member banks to distribute credit among rival bidders. Federal Reserve responsibilities relate principally to such general powers as influencing the cost and supply of credit, and not to selecting the particular enterprises among which credit is to be allotted.

Many of the objections applicable to plans to create new agencies for the promotion of economic harmonies cannot therefore be made against the type of planning for which a central banking system seems clearly adapted. It is accordingly essential that more thought be given by economists than has been to the possibilities of securing through

central banking operations some of the objectives of current planning suggestions before traveling the perilous paths toward trade organization control, toward formally recognized national economic councils, toward governmental agencies to ration and allot long-term credit.

If now we argue that the Reserve bank directorial bodies possess certain definite advantages as economic planning agencies, agencies to which much of our stabilization program should be entrusted, it is necessary to inquire as to the help that economists may give them. Unless purposive, economic thinking of a broad character becomes dominant in their councils, the Reserve banks must continue to be regarded as part of the domain of private banking. We must determine, therefore, as precisely as we can how applicable current business cycle theories are to the type of facts with which any central banking system is directly concerned. What prospect is there of reaching some measure of agreement among proponents of rival theories so far as the task is that of finding a basis for practical banking operations? To what extent can the rival doctrines be subjected to statistical verification so that any application of them will seem to be realistic; so that, in other words, men of analysis, on the one hand, and administrators on the other, will find a common meeting ground? What possibility is there that, in the practical problems of credit and banking, economists may be moved to distinguish between attempts to solve the distant ultimates and efforts to uncover proximate realities? What, in short, have economists to offer the type of men who always will occupy positions of influence in central banking administration? Although satisfactory answers to any of these questions cannot here be given, a mite of progress may perhaps be realized.

At the present juncture, there would probably be little disagreement among economists with the assertion that, for our purposes, a large part of business cycle theory cannot be utilized. Without disparaging its value for other purposes, it will be readily admitted, I believe, that much of prevailing theory is the result merely of ingenious exercises in the drawing of deductions from premises, the truth of which may not be universal. To my mind a case in point is the brilliant work of Foster and Catchings—and I go out of my way to say brilliant because so many adverse critics seem not to understand their argument. Their analysis does reveal clearly how, if saving goes beyond certain limits, difficulties must be encountered in finding a market for the outputs of industry. But the initial equations, which are asserted to represent a condition of equilibrium, make no formal entry for saving. It cannot be denied, however, that, without saving, a society possessing the other characteristics therein ascribed, must shortly experience a diminution in outputs. From the very first the doctrine is thus posed

in such a way as merely to raise the question whether saving can go too far. It itself does not reveal the amount of saving necessary to permit equilibrium to be maintained year after year between production and consumption demand. Informative as the doctrine may be with respect to possible processes it cannot be accepted as a basis for a stabilization policy.

Many other doctrines which are frankly intended to be directly applicable to central banking problems reveal a confidence that is amazing with respect to the simplicity with which it is assumed financial forces operate. A variety of such theories assume there is some magical quality in a central bank's discount rate. Frequently, it seems unnecessary for adherents of such doctrines to inquire whether the fundamental fact is the availability of credit, or the cost of obtaining credit. The processes, moreover, by which credit flows from one use to another, the obstructions encountered in its flow, the conditions governing the relationship of central bank operations to member bank activities, the circumstances which influence member banks in utilizing, say, surplus reserves, the factors which in turn govern the borrowing dispositions of the business public, these to many economists seem to be unessential questions. The influence of a high or low bank rate upon business activity is often regarded as direct and universal in the intensity of its influence. A low rate, so it is sometimes alleged, gets translated immediately into higher prices for the "non-available output" by means of the discount process. To others a low interest rate stimulates purchasing even by dealers and traders who have a quick turnover through the process of reducing costs. Such doctrines, no matter how useful they may be for some purposes, demand too much faith in the influence of particular, and perhaps minute, processes to be acceptable to bankers who know something of other powerful forces that are always at work.

Nor can I omit friendly reference at this point to the zeal with which some price stabilizationists have overworked the doctrines of their inspiration by assuming under all conditions the easy responsiveness of commodity prices to money and credit policies. In recent years there has been a tremendous amount of discussion regarding the particular price level to which, by means of credit policies, we should endeavor to return speedily. Would it be better to re-establish the level of 1926, or the average for the 1928-32 period, or some other price level? And should the governing index reflect wholesale prices, costs of living, or a more general array of goods and services including perhaps the prices of intermediate goods? Does not much discussion of this type fail to reckon with the possibility that under certain conditions it may be beyond our power to avoid some instability in our standard of deferred payments, or that temporary success in such stabilization efforts might

finally result in violent and perhaps uncontrollable price movements of a reverse character.

To drive home this point, I should like to make reference to the activities of the Reserve banks in the middle of 1927. Although undoubtedly conceived to accomplish other ends, the greatly increased open market purchase of the Reserve banks in the first half of 1927, and the ensuing reductions in discount schedules from July of that year on, represented precisely the sort of action we should have expected of our central banking system if it had been under mandate to stabilize wholesale price levels. For, during 1926, the Bureau of Labor Statistics wholesale price index declined by about 5 per cent, and, during the early part of 1927, this mild, but steady, downward movement continued. Toward this downward movement a variety of factors undoubtedly contributed. But, in my belief, we should admit the influence of an unusually rapid introduction by manufacturing enterprises, especially, of improved machinery and cost-saving processes of all sorts. This contention may be ill founded. But whether or not it is, disproof cannot, I think, be found in statistics of production of the type which show that the annual rate of growth in total outputs from, say, 1922 to 1928, was not far out of line with pre-war trends. Technical and organization improvements, I believe, had much more often the consequences of reducing costs and of increasing capacities than they did of expanding outputs. Consideration of unemployment tendencies in this period adds support to this interpretation. But even if I can be convicted of error in this assertion, I shall not be greatly worried. Any assumption erroneous as to facts can easily be made the hypothesis of a period which we may experience in the future.

As a result of these Federal Reserve easing measures the growth of member bank loans and investments from the first quarter of 1927 to the middle of 1928 was extremely large, in fact much in excess of the 1922-29 average. Largely as a consequence, I hold, the supply of credit made available to business corporations by means of new non-refunding, security issues was of record volume. Through investment offerings funds were obtained which, when distributed through the normal channels of trade, so sustained the money demands for goods of all types that, until almost the close of 1929, the downward movement of wholesale prices was checked. But this stabilization of prices was accompanied by a remarkable expansion of our capital equipment. Productive power was so geared up that, ever since the 1929 recession in the security markets, it has been difficult to find a satisfactory outlet for bank credit in plant improvement projects.

The rapid price declines of recent years may therefore be characterized, I think, very largely as a belated consequence of the easing

credit measures of 1927. In other words, it may properly be asked if commodity prices which do not sufficiently respond to reduced per unit costs of production may not just as appropriately deserve the opprobrious term of inflation as might, under other conditions, an actually advancing price level. The argument here might possibly be strengthened by calling attention to international factors. To attempt to sustain domestic commodity prices by credit devices when, in other nations, contrary forces are at work, may necessitate the creation of so much credit as to encourage serious abuses in the investment and speculative markets. It may be that this phase of the problem will be dealt with in the following paper.

Since this illustration has been long I may reiterate that I am trying to show the impossibility of utilizing certain stabilization doctrines which assume that the world in which we live is so ordered that we may easily avoid fluctuations in the purchasing power of our monetary unit by means of credit policies if only we have the will to do so. It may perhaps be true that, if we are to avoid extensive price derangements, we must accept minor readjustments in prices, as well as in the volume of business activity, as part of our inexorable destiny.

The above-stated appraisals of the inadaptability for our purposes of much of the business cycle and stabilization doctrine that is current are given merely as a prelude to the kind of theory that here will be offered. Our doctrine must, if possible, be dressed in a terminology that is understandable to banking executives; it must not be crowded with ultimates when proximate realities will suffice; it must not be fashioned to accomplish too grandiose objects; it must, as far as is possible, be capable of statistical verification; it perhaps should be little more than intelligent empiricism. At the same time, however, it should be capable of being interpreted in terms of the processes by means of which economic forces operate.

But what should be the cardinal points in such a doctrine? With especial reference now to economic and financial processes, the following are suggested:

1. There must be full recognition of the proposition which our chairman has so ably expounded² that the real starting point of disorderly liquidation is the general rush of those in debt to get out of debt. The moment debtors as a class decide that they have overreached themselves, all sorts of disturbances are initiated which tend to develop with cumulative force. Anxiety to convert assets into cash is the universal proximate cause of disorderly price declines and of liquidation in all its more violent aspects. To check such liquidation, purchasing power in the form of bank credit must in some way be restored. Despite much

² Irving Fisher, *Booms and Depressions*.

general opinion to the contrary, I do not believe that business cycle theory has demonstrated successfully how, outside the field of released banking power, depression automatically generates forces capable of overcoming the constantly increasing evils resulting from the general pressure to liquidate debts.

2. The most important underlying cause of a general disposition of entrepreneurs to liquidate is the fact that new debts are not being created in sufficient volume. There is nothing wrong with debts *per se* because a vital aspect of business is the contracting of debts by some in the hope that such debts can be liquidated out of funds circulated among the members of the business community as a consequence of the borrowings of others. Indebtedness is incurred only because there is confidence that new debts will regularly succeed and take the place of old debts. In other words, since most private debts are paid by drawing checks against banks, the constant and normal flow of bank credit into new business transactions must not be interrupted if old debtors are to be kept from initiating disturbing liquidation.

3. The banking system must be so organized, if the purpose is to avoid periods of disorderly liquidation, that hesitation among the entrepreneurial classes will shortly be countered by decisive efforts on the part of banks to get more credit into use. In this respect it may fairly be questioned if the American banking system operates as successfully as in the days prior to the organization of the Federal Reserve system. Member banks have been taught that they should not plan to employ Federal Reserve credit for extended periods of time. But experience shows that in boom years an irregular and intermittent nibbling into the reservoir of reserve credit by a large number of member banks will give rise to a considerable volume of discount indebtedness. After the turn in business arrives, bankers like other business men strive nervously to erase these debts. In the absence of such windfalls as the receipt of gold from abroad and favorable central bank operations, bankers as a class cannot discharge their debts to the reserve institutions save by reducing the volume of their deposit obligations through calling loans. But the rapid calling of loans destroys the worth of bank assets. Vigorous counteraction by the Reserve banks, by means of such processes as extensive open market purchases of government securities, is then required to stem the tide of liquidation. In an acute emergency the mere establishment of low discount rates is likely to be of little avail.

4. If the volume of debts contracted before a severe shock to confidence has been large it is probable that open market operations designed merely to erase member banks' discount indebtedness will not be sufficient to restore the flow of bank credit throughout the business community in sufficient volume to check disorderly liquidation. When

business activity recedes bankers become more conservative in granting credit, and, in a declining securities market, bank deposits, in comparison with holdings of corporate equities, become more preferred by investors. A refusal at such a time of depositors to invest has essentially the same consequences as at other times would result from the removal from business use of a portion of the outstanding exchange medium.

5. In the distribution of bank credit the long-term capital operations of business are of great importance, because these operations constitute that portion of our economic activity which at all times exercises an especially potent influence upon prices. Funds released in plant improvement projects, for instance, tend to produce at once an intensification of the money demands for all types of goods; and, at the same time without the consequence of increasing immediately the flow of consumers' goods to the market. While such capital operations may normally be highly sensitive to money market conditions because they are more adaptable to long-term borrowings, in which money rates are of the most importance, they may be quite irresponsive to even favorable credit conditions in periods of depression. In every serious reaction the more or less universal testimony of entrepreneurs is that plant capacities exceed any requirements immediately in prospect. Explanations of the tendency of business concerns to overbuild plants in times of activity are numerous and varied. Leaving out of account "psychological" tendencies to overestimate future demands, the following "technical" factors deserve especial emphasis for our purposes:

a. The entrepreneur has frequently no real opportunity to decide upon a middle course. Ten extra subscribers may compel a small telephone company to insert a new switchboard section containing a hundred drops. Where an 80 horse power electric motor is required, a 100 horse power motor may have to be installed for the reason that there is no commercial size between 75 and 100 horse power.

b. Expansion designed to meet the demands of conservative estimates may not offer prospects of reducing per unit costs at all comparable with those promised by more elaborate projects.

On the financial side it must furthermore be realized that capital issues are rather exceptional incidents in the financial experience of most corporations. The tendency must always be to make "ample" provision for the future. Once, however, the means of financing are assured, it becomes difficult or impossible to avoid succumbing to the entreaties of the engineer.

The economic world in which we live is unfortunately not one in which, without some sort of arbitrary control, we may count upon a harmonious development as between capital equipment and final prod-

ucts, save perhaps in the sense that disturbances in the one field must be communicated to the other. It does not take long, furthermore, for an "improvement" boom to alter radically the productive powers of our leading industries. The total replacement value of the country's plant equipment of all types—including factories, railroads, commercial buildings—probably does not exceed the income of the people in a single average year. To stagger plant improvement between industries, so that intensive evil conjunctures may be avoided, requires carefully exercised control in periods of normal or supernormal activity. The encouraging influence of abundant credit may be insufficient after serious reaction has developed to secure any marked degree of plant expansion. To be an effective planning agency, a central bank cannot therefore start from "scratch," in the sense that it is easy at any time for it to offset the mistakes of the past. The central banking system's efforts must be continuous and long sighted.

A brief recapitulation here may be helpful. For reasons indicated we are not likely to get during severe depressions as liberal credit policies as are desirable. Even if we could we should not have solved all of the problem. Effective stabilization requires also a restraining credit policy in the good years, particularly because of tendencies to overdevelop our plant equipment.

6. Although long-term investment demands may be highly significant with respect to informing us as to the processes by which rapid changes in the credit volume come to take place, it would be extremely difficult to base central banking policy predominantly upon developments in the field of capital investment. For one matter, methods of corporate financing constantly change, and it may become impossible to estimate the extent to which long-term issues have merely been taking the place of commercial borrowings which otherwise would be more extensively relied upon. As another practical difficulty, capital issues have displayed such extreme fluctuations in the past that it is practically beyond the statistician's power to make any reasonable estimate of a "norm."

7. There is much evidence, however, to support the contention that excesses in the issuance of long-term capital issues are largely the consequence of member banks' coming into possession of an abnormally large volume of lending power and vice versa; that, therefore, if the per year growth of member bank credit could be steadied mistakes in the use of long-term credit would be greatly reduced. Elsewhere I have compared fluctuations in the volume of member bank loans and investments with new corporate issues.⁸ From this comparison it appears that from 1922 to 1929 the peaks in new corporate issues were reached at

⁸ *Federal Reserve Policy, 1921-1930*, pp. 180-181.

about the same periods of time as those in which a curve of the volume of member bank credit attained temporary maxima. There is every evidence that any sudden increase in the lending power of banks tends to manifest itself for the time being largely in long-term investment channels.

In conclusion, therefore, full recognition of the significance of long-term investment credits does not seem to require us to lay down any different principle for the guidance of central banks than we would be obliged to formulate if the only type of credits extended by the banking system were those of a short-term commercial character. Long-term investment excesses seem to be largely the consequence of an unsteady growth in the total outstanding volume of member bank credit. The statistical basis for supporting the policy of steadying the growth of credit has been elaborately supplied by Snyder. All I have tried to do here is to show how his thesis might be defended by analyzing the processes which must be controlled if the Reserve system is to operate successfully as an economic planning agency.

I am aware of the fact that to try to steady the growth of member bank credit could not be a policy that would be thoroughly satisfactory to idealists. Under it we would no doubt continue to experience minor business reactions and also some degree of fluctuation in the purchasing power of the dollar. In the last analysis this policy must rest on the premise that, in the absence of serious credit pressure, custom, contract, and friction tend to produce a reasonably stable level for all the prices that go to make the demand for credit what it is. This premise can never be exactly correct. But I do believe it squares more closely with the facts than other stabilization doctrines which are current, and if it could be accepted merely as an approach to central banking policy, there would be some assurance that, in any short period of time, serious maladjustments would not be occasioned by monetary causes. And if any part of the explanation seems involved some progress might be achieved simply by declaring to the banking administration that its basic responsibility consists in keeping always in a position to accelerate or retard the flow of bank credit. For, when the flow of credit becomes too rapid, an excessive volume of debts is created; and when the flow of credit becomes deficient, old debts cannot be discharged.

Objections to the conclusion herein supported, which might be developed from an analysis of international factors, cannot here be considered. But to those who see inescapable difficulties from this source, I would suggest that the attempt be made to compare its probable consequences in—say—the period 1922 to 1928, with the actual policies that were promulgated. I would also ask to have reviewed the whole question whether American economic developments do not exert far more

influence upon those of the entire world than we as yet have even begun to surmise. If the results of such an exercise are not favorable to our contention, I would then raise the further question whether gold standard currency systems do not require modification. But the alteration of the rules of the gold standard game is not the immediate task. In our thinking we must first conceive of an adequate domestic policy before we are justified in proposing efforts designed to accomplish grandiose international objectives.

FEDERAL RESERVE POLICY IN WORLD MONETARY CHAOS

By JAMES HARVEY ROGERS
Yale University

For in recent years have the monetary systems of the civilized world been in a more chaotic state. Even the post-war inflation period is hardly more extraordinary or more tragic conditions.

British Empire and the so-called "Sterling Group" remain on outdated paper standards with no clear-cut plans for the future.

and the United States continue to hold approximately two-thirds of the world's monetary gold stock, while no inconsiderable portion of the remaining one-third is piled up useless and virtually sterile in Belgium, Switzerland, and Holland.

Meanwhile, business activity and commodity prices throughout the world have sunk to levels completely incompatible with the existing level of debt. The ruthless, exceedingly painful, automatic adjustment of this volume of debt to the low level of prices moves slowly on, carrying with it the wrecked fortunes and the ruined lives of no inconsiderable portion of the world's best citizens. In such a situation Federal Reserve policy has been faltering and frequently unsatisfactory. Almost two years and a half after the depression began, the general principle upon which policies were based seemed to be: "The body politic will heal itself, once 'normal' and 'desirable' liquidation has taken its course." Hence, while very commendable and effective action was frequently taken to "cushion" too rapid movements under conditions of panic and often of hysteria, it was not until the spring of 1932 that action directed toward arresting the liquidation process itself was taken. The effects of this constructive change in policy should require, therefore, careful evaluation.

The theory of open market purchases of the Federal Reserve banks in the minds of those who have undertaken to analyze the effects can be summarized very briefly as follows:

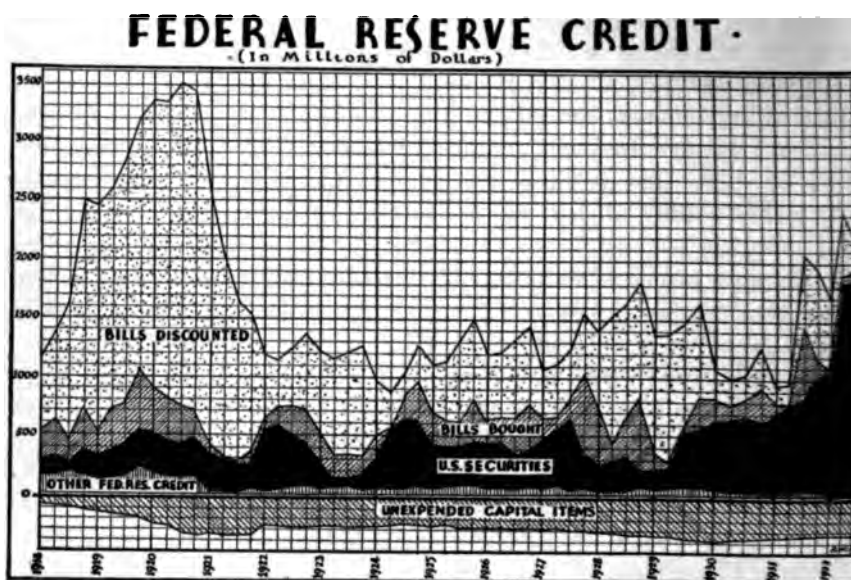
When new funds are put out by the open market purchases of the Federal Reserve banks go very quickly to the reserves of the commercial banks. To the extent that excess reserves are thus built up, pressure is brought upon the commercial banking system to expand its loans and investments—but in depression periods primarily its investments. So far as statistical evidence is available, this contention is borne out by the actual actions of the banks. Since, however, large security holdings of American banks date from the war and post-war years, such evidence is necessarily very scanty.

Considerable purchases of securities by the banks would be sure

to strengthen the markets for the securities bought and this gradual strengthening could usually be depended upon to stimulate buying on the part of other institutions and of individuals.

Finally, the rebuilding of the security markets would furnish the means of floating securities, the proceeds of which would be speedily used in the purchase of raw materials, the payment of wages, and in other ways destined to put the new purchasing power into the hands of spenders. Thus the success of the policy depended on the use of the new funds by the banks, on a sufficient improvement in the securities

CHART I



markets to float new securities, and on the continued existence of satisfactory securities to be floated.

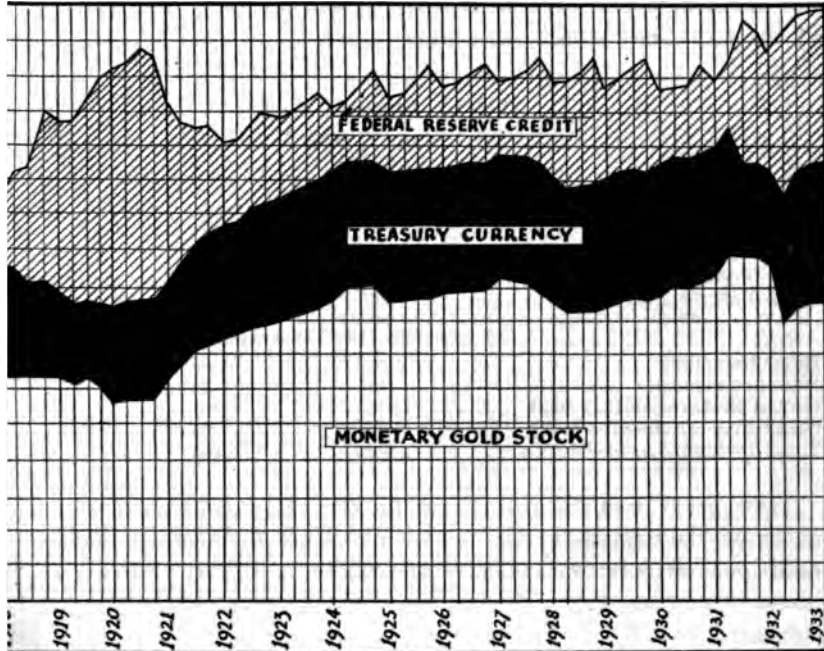
When I talked on this subject before you last year, the third requirement was still amply fulfilled. I then advocated strongly the open market policy in the hope that the banks would invest the new funds turned over to them and that in turn a securities' market sufficiently strong and broad to provide for gradually increasing flotations would soon result.

Let us examine what has happened. Reference to the accompanying chart and table will be helpful.

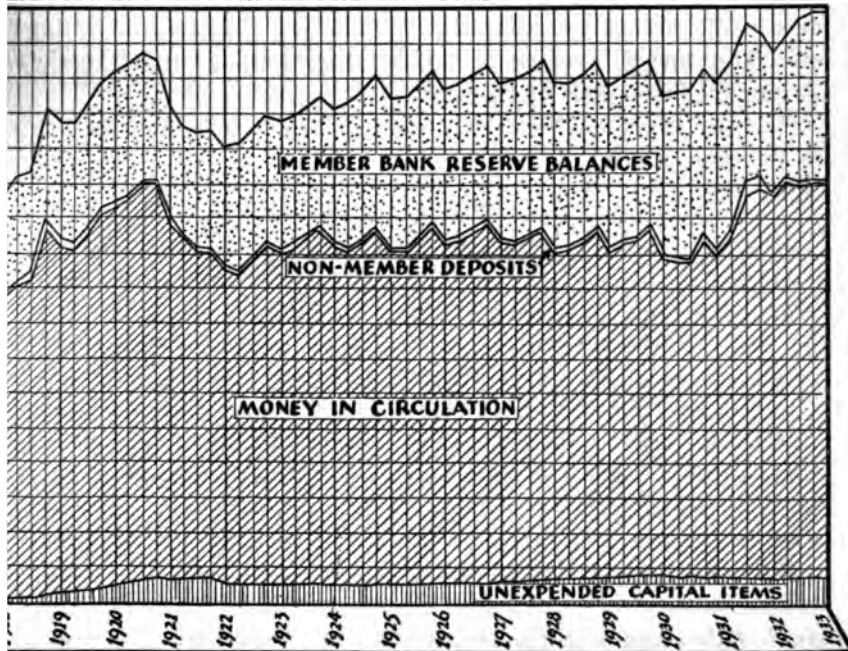
Evidently, as anticipated, a large portion of the new funds were utilized in paying off borrowings at the Federal Reserve banks by the

CHART II

THE CREDIT BASE and its UTILIZATION 1918-1933



FIGURES READING UP, ON LEFT, IN MILLIONS OF DOLLARS



member banks and a smaller portion through the cancellation of bill holdings of our central banking institutions. Nevertheless, a very large net balance of new Federal Reserve credit remained and was consumed in the ways indicated in the chart above.

TABLE I
FEDERAL RESERVE CREDIT
(Weekly average of daily figures)
(millions)

	February 27, 1932	August 13, 1932	Change
Bills discounted	\$842	\$458	\$-384
Bills bought	189	88	-101
United States securities held	740	1,851	+1,111
Other Federal Reserve credit	81	16	-15
Total Federal Reserve credit	1,752	2,263	+611
	August 13, 1932	December 14, 1932	Change
Bills discounted	\$458	\$284	\$-174
Bills bought	88	84	-4
United States securities held	1,851	1,851	...
Other Federal Reserve credit	16	20	+4
Total Federal Reserve credit	2,263	2,189	-174

How great was its absorption by the early gold outflows and how much of the remainder was in turn utilized to meet the demands for additional circulation (largely hoarding) is clearly evident. In spite, however, of these heavy drains, the excess reserves of the member banks increased rapidly and continually. Moreover, after the open market policy had come to an end, further increases continued to appear partly as a result of cash returning from circulation (i.e., from hoarding) and even more largely because of persistent gold inflows which again set in during the latter half of the year.

The net effect on the excess reserves of the member banks is given in the table below.

TABLE II
EXCESS RESERVES OF MEMBER BANKS
(millions)
Monthly Averages of Daily Figures
1932

January	35.4
February	48.8
March	59.0
April	152.1
May	277.1
June	284.4
July	204.4
August	269.9
September	345.5
October	435.8

Such an accumulation of excess reserves (or idle funds) would, under normal circumstances, bring much pressure on the banks to lend and to invest. What has been the net effect in this direction?

TABLE III
LOANS, INVESTMENTS, AND DEPOSITS OF REPORTING MEMBER
BANKS IN LEADING CITIES
(millions)

Monthly	Loans and investments	Loans	Total investments	U. S. securi- ties held	All other securities	Net demand plus time deposits
.....	\$19,992	\$12,855	\$7,137	\$8,841	\$8,296	\$17,224
.....	19,606	12,609	6,997	8,806	8,191	16,786
.....	19,854	12,211	7,143	8,920	8,223	16,621
.....	19,038	11,882	7,151	8,884	8,267	16,829
.....	18,994	11,588	7,406	4,084	8,323	16,831
.....	18,754	11,263	7,491	4,254	8,237	16,467
.....	18,384	10,992	7,342	4,186	8,206	16,346
.....	18,589	10,796	7,743	4,535	8,208	16,645
.....	18,907	10,706	8,201	4,960	8,241	16,869
.....	19,118	10,516	8,602	5,298	8,304	17,195
.....	19,002	10,418	8,589	5,266	8,523	17,413
7th	18,841	10,364	8,477	5,226	8,251	17,196

the table above it is seen that loans and investments together, as deposits, reached a low point in July, 1932. Since that time, loans have continually declined, investments continually increased to the end of October. Likewise, deposits through November continued their upward trend, being now a little less than a billion dollars above the July low.

It can be enumerated the following highly beneficial accomplishments—resulting largely from the accumulation of bank reserves, which are closely related to Federal Reserve policy and to the successful inflows:

The disastrous bank liquidation has at least been arrested and in its aftermath (through October) came a mild gradual credit expansion.

The national government has been enabled to borrow in large volumes at very low rates.

The market for the highest grade of non-government securities has continually improved.

Operations of such securities proceed with little difficulty and are readily undertaken—when available—by the investment bankers.

Nevertheless, the credit expansion so far has not proved sufficiently effective to bring substantial relief. The banks to whom the new funds have been distributed have not distributed them quickly enough and in sufficient volume to create security markets strong enough and broad enough to float securities in large enough quantities to bring recovery. In other words, the gap between the distributors of credit and its users is still largely unbridged.

What are the reasons for the slow working of so eminently constructive and so highly desirable a relief measure? They are many and some of them are easily traceable.

The condition of the banks themselves is a powerful retarding influence. Having taken numerous and extremely dangerous losses in all parts of their portfolios—especially in security holdings—and many of them being in precarious financial condition, they do not dare run the risk of further losses. Hence, their tremendous demand for short-term government securities and their great accumulations of idle reserves.

The condition of business and of other big borrowers is an equally formidable obstacle. So precarious is the situation of our railroads, of many of our municipalities, and of no inconsiderable portion of our public utilities—not to emphasize the almost hopeless condition of a large part of our mortgage debtors—that bank purchases of such securities are naturally made only with the greatest of trepidation. Hence, continued strength in the securities' markets has so far been confined to the highest grade bonds only.

Meanwhile, the ever more clogged conditions of trade and ever more drastic reductions in our exports throw a continually darkening pall over the prospects of sustained recovery.

Finally, the unbalanced national budget, by threatening the securities' markets with large government flotations, causes the investment bankers to pause before undertaking other issues of much less security.

Under such conditions, not only have the markets for securities below the "gilt-edge" classification not developed, but many issues tentatively arranged for with investment houses, to be floated as soon as a satisfactory bond market should appear, have gradually dried up.

Thus, while this mildest of inflation measures—"reflation" some prefer to call it—has done much to arrest the downward movement and to create economic stability, its ultimate success in bringing relief from depression is still in doubt. It would seem the part of wisdom, therefore, to visualize a possible continued inadequacy of existing constructive influences and to discuss the (I trust) hypothetical consequences.

Should failure occur, what is its significance? Does it mean the end of the capitalist system—as many contend—or are there other ways out? While our economic technique and our data do not perhaps furnish the basis for a conclusive answer to such questions, much of pertinence can be said.

The credit expansion policy so far applied is perhaps the mildest form of inflationary device. Indeed, it is a type of inflation over which a large measure of control is at all times held, since the securities bought by the Federal Reserve banks could—under almost any foreseeable conditions of inflation—be sold, and the effects of the policy be thus checked.

For success, however, it requires the smooth operation of a large portion of the capitalist machinery, the breakdown of which at critical points will interrupt the effectiveness of the measures adopted. That a temporary break has developed in the form of the gap left by the failure of the banks to distribute the funds to spenders, no one can dispute. Moreover, if this gap remains unbridged, the capitalist system will not be able to utilize these particular devices to bring about recovery.

When one admits such failure, however, he—perhaps unconsciously—admits many other things. Let it be carefully noted that the operation of this inflation device is—except for temporary though often very important, psychological concomitants—identically the same as that of gold imports of the most influential kind. This is easily seen. New gold imported on commercial account, for example, has as its immediate and direct effect, the swelling of the reserves of the importing banks by the amount of the imports.

If, and only if, these increased reserves lead to an expansion of bank credit, is there any resulting effect on business activity and on prices. When reserves, as at present, are ample for any emergency, the indirect effects of the gold accumulation may be neglected. Extensive gold inflows, under present conditions therefore—except for often important psychological effects—will do no more and no less than an equal purchase of government securities by the Federal Reserve banks.

Lest, however, the boosting effect of nationally successful inflation itself be overstated, a word should be said as to the operation of more extreme types of this often dangerous remedy. Moreover, in order to bring into bold relief the points in which I am especially interested, I shall proceed to follow step by step the processes of the purest, simplest, and perhaps most absurd type of inflation.

Suppose, for example, that the government should send a newly-printed ten-dollar greenback to every man, woman, and child in the United States on the first day of each month for the next six months. Thus would be distributed monthly—presumably largely to spenders—\$1,200,000,000. And, thus, to that amount—but to that amount only—would the gap recently left open by the partial failure of the banks to distribute to spenders the funds turned over to them by the recent Federal Reserve policy be bridged. The subsequent and much more important effects—and this is the point I wish to emphasize—would come from identically the same source as those from gold imports or those from Federal Reserve open market purchases; viz., from accumulations of excess reserves in the banks. In detail: the new greenbacks, after their first turnover, would be largely deposited in commercial banks, which would in turn send them to the Federal Reserve banks, thereby increas-

ing member-bank reserves—as well, incidentally, as reserve cash in the Federal Reserve banks. The further inflation, therefore, as now, would depend upon the loan and investment policies of the member banks. Moreover, since the banking system is able normally to expand its credit seven to ten times the new reserves thus received, this secondary inflation is correspondingly more significant and more dangerous.

Another type of inflation frequently spoken of today has its major though secondary impact in the same place. Psychological influence again neglected, reducing the gold content of the dollar, to the extent that it would succeed in bringing stimulus to trade and prices, would act directly through the foreign exchange markets. Because of the reduced value of the dollar in terms of other money units, foreign buying of American securities and commodities (in so far as trade barriers and exchange restrictions would permit) would provide the sole initial impetus. The resulting gold inflows—to the extent that they were allowed by gold losing countries—would have as their major direct effect the further accumulation of excess reserves in the hands of the commercial banks. On the probable assumption that the profit from the reduction in the gold content of the dollar would accrue to the national government, and by it be promptly spent, a further bridging of the gap to the extent of this profit would ensue. Such new expenditures, too, representing, as they would, a direct expansion of Federal Reserve credit would in turn add a like accumulation to excess reserves of the banks. Hence, except for the depressing effects in other parts of the world of our absorption of a still larger part of the world's monetary gold stock, the major effects on business and on prices would again depend on the loan and investment policies of our commercial banks.

It is clear, therefore, that even inflationary devices, unless carried to dangerous lengths, depend for their success on bridging the same gap as that now defeating the expansionary influences already in operation.

The direct—but perhaps unconscious—attempt to bridge this all-important gap by governmental action has largely failed. The reasons are obvious. In the prosperous years 1926-29, the monthly new capital flotations in the United States—other than refunding—averaged but little less than \$700,000,000 (\$676,000,000), and in 1929 were more than \$850,000,000.

Since few concerns, business or other, borrow long before they are ready to spend, such flotations represent largely the turning over of funds to quick spenders. In addition, a great part of such early spending is apt to be for raw materials and for labor. It is thus, through credit, that the capitalist system sets in motion the processes of production and consumption.

When the Reconstruction Finance Corporation undertook to bridge

the gap left open by the "temporary" failure of the capitalist machinery, it soon became evident that the bridging would be hopelessly inadequate. In my opinion this is almost inevitable. It is government money that is being spent and patriotic citizens, such as the officials of the Reconstruction Finance Corporation, in charge of its spending are sure to release it sparingly and only on good security. A railroad applying for \$100,000,000 loan may, if lucky, get \$60,000,000. Hence, in spite of the huge lendings of this government agency, this bridging—combined with the small but improving private flotations—has so far not been more than adequate to arrest the downward drift in business, in prices, and in employment. Moreover, if solely relied upon, that it will continue inadequate seems to be sure. Under such circumstances, and in the absence of substantial recovery in the private capital markets, our very rapid drift toward state capitalism is obvious. And, in my opinion, state capitalism is but next door to state socialism. The drift instead of slackening in speed seems to become more pronounced as time passes. As the government becomes each day more deeply involved as a creditor to American business, the chances of its ever being able to pull itself out become more and more remote.

Should the gap not be adequately bridged therefore—an assumption which I am not yet prepared to accept—what can be said as to our present situation? It would seem desirable to make the diagnosis while a drastic operation still promises recovery for the patient.

If I may use the exact, rigorous terminology of the Lausanne Mathematical School, I should say that at least temporarily our economic equilibrium is broken. To American audiences such a statement doubtless means little. In this country, equilibrium is a term so generally and so carelessly used that it has come to mean almost anything and therefore nothing. In contrast, Vilfredo Pareto used it in a very specific sense indeed. By him a state of equilibrium is defined as that state any departure from which sets up an aggregate of influences tending to restore the original state. Evidently, under such a definition, the sea is in a state of stable equilibrium, as is a lake, so long as its boundaries are undisturbed. Also, hitherto, under the capitalist system, so stable has been our own economic equilibrium, that any disturbance could be depended upon gradually to produce its own cure. No doubt, this is the basis of the well-established opinion among business people that the body economic will cure itself if only let alone.

That such an assumption can no longer be made with confidence should now be clear. If the above-discussed all-important gap cannot be bridged, we are apparently slipping off into another largely undetermined and unforecastable economic organization.

Are there any means of more adequately bridging the fatal gap? The

answer is that there are many. Some of them are, however, of the nature of a major operation, which must be performed by highly skilled surgeons. Yet unless mild remedies are very promptly and adequately applied, resort to the more drastic treatment may soon be required by political necessity.

Furthermore, let it be added, and continually emphasized, that because of the make-up of our money and capital markets, any serious threat of national inflation—however well controlled—is sure to bring grave financial trouble. Indeed, unless international in scope, monetary measures of a radical character are certain—even before passed by Congress—to precipitate panic in our great investment centers. The sudden withdrawals of foreign balances, sales from abroad of American securities, capital flights from this country and resulting large gold outflows would reproduce in intensified form the panicky conditions of late last spring. Meanwhile, the beneficial effects of the plentiful money policies of our Federal Reserve banks, supplemented by the recent gold inflows, would be again interrupted. Hence, the obvious necessity of attacking the problem on an international scale.

The World Economic Conference is immediately ahead. Moreover, in spite of the Ottawa agreements, never in recent years has the feeling in this country toward the British people been more cordial. My proposal is, therefore, that this good feeling be preserved and harnessed to no less an end than that of bringing the world out of the present depression.

Specifically, the proposal is as follows: let the American and the British governments enter immediately into a gentlemen's agreement to co-operate in every way politically and economically possible to rid the world gradually of undesirable and unnecessary trade barriers, to raise world prices to a level at which the capitalist system can again function, and thereafter to maintain such a level; at the forthcoming World Economic Conference, let the British and the American governments, with the participation of as many others as possible, ratify such a gentlemen's agreement.

The emphasis upon the gentlemen's agreement is purposeful. The British are sure to regard such an agreement as binding and would move continually year after year in the directions agreed upon. Their actions in turn would bring upon the American government, the American Congress, and the Federal Reserve authorities the healthiest, most friendly, and hence, the most effective type of continued co-operation.

In my opinion it would be a great mistake to attempt, instead, any sort of agreement on specific policies to be adopted. Those suitable and feasible in England might be politically completely impossible in this country or in Australia. Moreover, a discussion of specific means to

the ends desired is sure to throw the emphasis in the wrong place and is apt to entail such great delay as to kill the effectiveness of the remedy when and if adopted.

At the World Economic Conference, it seems probable that the co-operation in such a constructive policy could be anticipated on the part of the British Empire, most of the northern countries, Germany, Switzerland, Italy, and possibly of Czecho-Slovakia.

Finally, in view of recent happenings in the bitter controversy over war debts and of the great publicity given to them all over the world, these obligations—probably worthless as financial assets—have apparently taken on a new value as constructive bargaining instruments. Having read about them daily in the headlines for more than four weeks, having “cussed” and discussed them, argued, quarreled and fought over them, the publics in the debtor countries have no doubt concluded—however erroneously—that they are far from dead. Moreover, with the statesmen in all countries seeking a formula for disposing of such troublesome obligations in exchange for a truly constructive program of world recovery, some such plan as the above would seem to meet with many of the political necessities involved.

If the American delegation could go to the World Economic Conference with a constructive program and with these debts to bargain away, much might be accomplished in bringing world-wide relief.

DISCUSSION

E. W. KEMMERER.—Mr. Reed seems to contemplate the necessity of an increasing degree of national economic planning, and maintains that instead of creating new bodies to do this work, we should utilize for the purpose our existing Federal Reserve bank organization. He then raises the question as to the help that economists could render this organization in the carrying on of its work, and maintains that in this connection the work of economists "must not be crowded with ultimates when proximate realities will suffice," "must not be fashioned to accomplish too grandiose objects," and "perhaps should be little more than intelligent empiricism." What I have to say will be concerned principally with this part of Mr. Reed's excellent paper, rather than with his later carefully guarded suggestions as to policy, with the majority of which I find myself in substantial agreement.

Assuming, for the sake of the argument, that a substantial amount of national economic planning is desirable—clearly a debatable assumption—are the Federal Reserve authorities a well-qualified group to conduct such planning? While these authorities have a fund of information that would be very useful to any economic planning group, and while under any scheme of national economic planning there should undoubtedly be a close liaison between them and the planning group, I doubt very much if the work of economic planning itself should be placed in the hands of the officials of the Federal Reserve system. In the first place, it does not seem to me that either in organization or personnel, the Federal Reserve authorities are particularly well adapted to this work; and in the second place, I fear that the placing upon them of this responsibility would have a deleterious effect upon the extremely important work they are now doing.

A personnel that would be well adapted to the duties of a central banking organization would not necessarily nor probably be well qualified for the duties of a national economic planning body. Most of the officers and directors of the Federal Reserve system are, and ought to be, bankers, merchants, and lawyers, whereas an economic planning board should have a large representation of economists, engineers, and industrialists. It would be expected that the governors of the twelve Federal Reserve banks would be bankers by profession, as they all actually are; but it is noteworthy that of the twelve governmentally appointed chairmen of the Federal Reserve banks, eleven today are bankers by profession, inclusive of one bank examiner. Among the six members of the Federal Reserve Board at the present time, there is one man who by profession is an economist, but there is not a single engineer nor man eminent as an industrialist. All twelve of the members of the federal advisory council are bankers. Taken together, these are the men who are most influential in determining the policies of our Federal Reserve system today, and presumably would be the ones who would dominate our national economic planning were this function turned over to the Federal Reserve authorities. It is true that the law provides for the election by the member banks themselves in each Federal Reserve District of three directors "who at the time of their election shall be actively engaged in their district in commerce, agriculture, or some other industrial pursuit." These men, how-

ever, constitute only three members of a board of nine; they participate in determining Federal Reserve policies only as directors who meet usually only for a comparatively short time at intervals separated by a number of days. As regards the policies of the Federal Reserve system, it is the continuously functioning personnel, like the Federal Reserve Board, its expert staff and the senior officers of the twelve Federal Reserve banks, that dominate.

If there is to be, in the interest of the general public, any national economic planning that is worth while, for a nation of over 120 million people, that normally does something like a trillion dollars worth of business a year, it will need to be done largely by men who devote most of their time to the job. This work can be no mere appendix to another job. It must be emphatically a vocation, not an avocation. To ask our Federal Reserve authorities to perform such a duty in addition to their present onerous Federal Reserve duties would be unwise.

Furthermore, any national economic planning body, no matter how constituted, will be the object of many political attacks and of continual political pressure from many sides. Our first and second United States banks went down under the onslaught of politics. Our Federal Reserve system has itself been the object of frequent political attacks. It is extremely important to the welfare of our currency and banking system, that the Federal Reserve system be kept as clear as possible of party politics. To impose upon it the function of a national economic planning body would almost certainly make it the object of increasing political criticism and pressure.

As to the nature of the assistance that economists should be called upon to give in the work of national economic planning, I cannot agree with Mr. Reed's contention that "perhaps it should be little more than intelligent empiricism." National economic planning must concern itself to a large extent with broad policies of production and distribution, and, I venture to say, also with social policies of economic consumption. Many of these policies will contemplate long periods of time. Those responsible for this work will need to have a knowledge of economic history, both in the United States and abroad, and a knowledge of fundamental economic principles. They will need to be men who can see economic problems from the public welfare point of view, rather than from the points of view of private profit or special group interest. Sound theory and economic vision are requisites for economic planning. Who is to furnish these requisites unless it be the scientific economist? I would not belittle "intelligent empiricism," but that will probably be furnished in abundance by any national planning body we are likely to have, consisting, as it almost certainly would, predominantly, of so-called "practical men of affairs." Such a body, moreover, acting collectively would normally be much more conservative and empirical than the average of its individual members. There is, in my judgment, a much greater danger of having too little vision than of having too much. Every forward movement will involve a compromise between empiricism and vision. The economist can contribute to both, but his greatest contribution should be to vision.

I am in a somewhat difficult position in commenting upon the paper of Professor Rogers, as all I have seen of it is a "preliminary summary draft"

without the charts and without his discussion of the "significance of the situation" which he summarizes, and even this preliminary draft was not received until the day before Christmas.

I am skeptical about what Professor Rogers calls four "highly beneficial accomplishments, resulting largely from the accumulation of bank reserves, which in turn are closely related to Federal Reserve policy and to the preceding gold inflow."

The first of the benefits he cites is that "disastrous bank liquidation has at least been arrested and in its place has come a mild gradual credit expansion." From the week ending February 27, 1982, to the week ending August 18, 1982, the average of daily holdings of United States Government securities by the twelve Federal Reserve banks rose from \$740,000,000 to \$1,851,000,000, representing an average weekly net increase of approximately \$46,000,000. After the middle of August, this policy of gorging the market with credit was discontinued, and an opportunity was given the market to digest what had been fed to it. This was one of the most extreme attempts at deliberate inflation or reflation—if you prefer—that the world ever saw. However, whether the policy was a wise one or not—and of course no one knows what would have happened without it—the sequel at best has been very disappointing. Moreover, how far what little improvement that may have taken place is to be attributed to this policy and how far to other factors, it is not easy to say.

Take the case of bank suspensions, for example. To what extent was the improvement that took place due to the fact that the 3,402 bank suspensions between January, 1980, and March, 1982, had cleared out our weakest banks, and to what extent was it due to the enormous volume of loans to weak banks granted by the Reconstruction Finance Corporation and its predecessor, the National Credit Association? Between February 2 and October 31, loans aggregating \$829,000,000 were authorized by the Reconstruction Finance Corporation to 4,706 banks and trust companies, while \$46,000,000 more were authorized to receivers and liquidators of closed banks to aid in their liquidation or reorganization. And after all, how great is the accomplishment for which we are trying to allot credit? The number of bank suspensions was the lowest of the year during March, the month in which the heavy open market purchases of United States Government securities by the Federal Reserve banks began, and therefore presumably before their effects could have been substantial; and during four of the next eight months it increased over the month preceding, although it was much lower during this period, as were also the liabilities of suspended banks, than during the corresponding period of 1981. June, July, and October—all months in which the banks presumably benefited from the reflation program—were respectively the months of the second, third, and fifth highest number of suspensions for the first eleven months of the year.

The mild gradual credit expansion of which Mr. Rogers speaks appears to have been exceedingly mild. If you divide the first eleven months of the year into three periods—(1) January and February, before the expansion program began; (2) March to August 12, while the program was in full op-

eration; (3) August 18 to December 1, a period in which it was inoperative—the average of the weekly total loans and investments of all reporting member banks were for these periods respectively, as follows: (1) \$19,976,000,000, (2) \$18,974,000,000 and (3) \$18,842,000,000. This was a decline, not an expansion. The principal effect of the heavy open market purchases of government securities on the member banks was a continual reduction of the member banks' indebtedness to their Federal Reserve banks, rather than an increase in the volume of credit which member banks extended to the public.

The second beneficial accomplishment Mr. Rogers mentions is that "the national government has been enabled to borrow in large volume at very low rates." The policy has certainly greatly facilitated and cheapened federal government borrowing at a time when much such borrowing was inevitable, and when the interest rate on short-time federal government borrowing, even without the reflation program, would presumably have been low, although nothing like so low as it actually was. From March 1 to November 22, the new indebtedness floated by the federal government was \$2,581,000,000. However, whether this greatly enhanced facility will prove a blessing or a curse is a debatable subject, when it is obtained to such a large degree by the purchase of government securities directly by quasi-public central banks, and by national banks to expand their bank note circulation, and when it brings the interest rate on short-time government securities to the absurdly low figure realized last week of less than .1 per cent per annum.

The third and fourth beneficial accomplishments cited by Mr. Rogers are essentially two sides of the same thing. They are (1) that "the market for the highest grade of non-government securities has continually improved," and (2) that "flotations of such securities proceed with less difficulty and are readily undertaken by the investment bankers."

I have not the figures upon which Mr. Rogers bases these conclusions and do not know what particular high grade securities he has in mind. I will risk the assertion, however, that the improvement so far shown, in part at least, has been due to other forces than the open market purchases under consideration; as, for example, the increased confidence resulting from the work of the Reconstruction Finance Corporation and the discontinuance of the outward drain of gold. For all bonds listed on the New York Stock Exchange, the average price for March 1 of this year was 75.8 and for December 1 was 78.9, a decline of about 2 per cent. The United States Government bond group rose a little over 4 per cent during this period, while of the other five groups of the Stock Exchange's bond classification, the average price of three fell and of two rose. Moody's index of domestic bonds of Aaa rating declined almost continually from the beginning of the reflation period until the middle of the period, and then advanced until during the second week in August it stood almost exactly where it stood the forepart of March. It averaged 78.7 for January and February, 67.9 for the period March to August 12, and 80.4 for the period August 18 to December 28. It has been declining during the last two weeks.

The amount of new corporate issues of all kinds was the highest for the first quarter of the year—namely, before the reflation policy inaugurated in

March could have had any considerable effect—that it was for any quarter. It was almost negligible during the months of April to June, while the inflation was in full swing. July was the maximum month of the year, and October the third highest, while for September and November the figures were almost negligible. The new corporate bond and note flotations for these eleven months of the year, amounting in round numbers to \$299,000,000 were exceedingly small as compared with previous years, and were actually less than one-fourth of what they were in the corresponding eleven months of the bad year 1931, when they amounted to \$1,418,000,000.

All in all, therefore, it seems to me that one must strain pretty hard to get much aid and comfort out of the "highly beneficial accomplishments" cited by Mr. Rogers.

One striking fact during this period of Federal Reserve bank credit expansion arising through the purchase of government securities is that, while these purchases were accompanied by comparatively little change in demand deposits of member banks, they were accompanied by an enormous increase of excess reserves and by very decided declines in the velocities at which deposits circulated. The average monthly net demand deposits of reporting member banks, and the average excess reserves for the three periods of 1931 were as follows:

	Deposits (Billions)	Excess Reserves (Millions)
January and February	\$15.1	\$ 40
March to July	14.9	189
August and September	14.3	306

For the same three periods, the average rates of deposit turnover, the so-called deposit velocities, were for New York City and for the other 140 cities in which the figures are available as follows:

	New York City	140 Other Cities
January and February	41.2	28.2
March to July	34.3	25.6
August to November	28.7	24.6

As more credit was made available to the member banks, the existing credit circulated at continually declining velocities. There were more credit dollars available but each credit dollar did much less work. Except in periods of great paper money inflation, the velocities of bank deposit circulation tend to vary with business confidence, rising as confidence rises and falling as confidence falls. The vigorous reflation program of the Federal Reserve bank was accompanied as it was by much agitation in Congress and outside for radical inflationary measures, weakened confidence among the very people upon whom our initiative we must chiefly depend for economic recovery. The banks had no money to lend, but these conservative people, the only ones the banks could trust with these new funds, did not want to borrow them. They could see nothing that they could do with them safely and profitably. To a considerable extent, the very reflation operation which created these funds increased the business distrust that was making the conservative business public unwilling to borrow and the conservative banks unwilling to invest.

FRANKLIN EBERSOLE.—The outlook for business recovery is not as bad as it has been painted. The outstanding favorable sign is the fact that the pessimist of yesterday is becoming the optimist of today.

Impatience is the besetting sin of those who criticize the failure of recent Federal Reserve open market operations to effect a quick recovery. Such patience is the outgrowth of cloistered thinking and a belief in the practical possibility of prompt and perfect stabilization of business through the application of simple credit mechanisms. It is refreshing to note Dr. Reed's disclaimer of such a belief.

Even if the theory of economic control through credit mechanics be accepted sound in reason, the achievement of current results from open market operations is conditioned upon at least three other factors, briefly labeled as: timeliness, amplitude, and background.

As to timeliness, could any advocate of national planning obtain through necessary political measures a governing board more able than the Federal Reserve Board to anticipate business needs, with less expansion in 1927, more recession in 1928, and more stimulus in early 1930? To what extent is the lack of vigorous open market stimulus in early 1930 the cause of our present response?

The amplitude of the business swing must affect the lag of results. With such an unprecedented slump, our wait for recovery must be longer than usual. The Federal Reserve policy of forcing surplus reserves upon member banks is of comparatively recent, if not to say unduly postponed, application. Amplitude resistance may be only another phase of deficient timeliness, neither of these is the greatest limiting factor today. That factor is the existing background or framework of banking in the United States. Any form of credit control must "float" upon changing circumstance. The neglected facts seriously conditioning the functioning of credit control by the Federal Reserve system are:

- The Act of March 14, 1900, encouraging the establishment of many moderate-sized, national banks, thereby promoting the free coinage of a rapidly increasing volume of personal and private credits into deposit currency purchasing power.

- The Act of December 28, 1913, enlarging the pyramid of deposit currency that could be built upon any given quantity of reserve material.

Neither one of these acts was sufficiently inflationary to set up a chain of its distorting contemporary judgments of "normal" and requiring redress by a reaction more or less as great as that of the present crisis. Relatively too much attention has been paid to gold effects during the period of operation between these two acts, and too little to the effects of American deposit currency on the world's gold problem.

Social-minded persons who fully realize the profound effects of expanding the credit pyramid in a society using deposit currency as its medium of exchange have a difficult decision to make. Should further deflation be countenanced? Having closed about 11,000 out of our 100,000 banks in the last twelve years, do we yet have too many banks? Should we rely upon open market operations solely when the whole frame-

work of bank credit is in collapse on the "firing line" where credit is and has been manufactured? Would a temporary emergency measure for the guarantee of bank deposits restore confidence in depositor and banker and relieve pressure for further liquidation? Have we been raising the standard of good bank credits too rapidly in the past ten years? Will branch banking continue the deflation of bank credit at the source? Should we encourage the granting of enough new and unsound credits now so that with the consequent price rise the present unsound credits held by our banks will become sound? Will the new party in power next March grant numerous bank charters to its friends, and restore the free coinage of personal and private credits? Will the Reconstruction Finance Corporation's exchange of government credits for deposit currency exceed the concurrent shrinkage of personal or private credits in circulation? How much longer shall we wait patiently for results from open market operations before attempting a drastic reorganization of our banking or monetary structure?

To answer any one or all of these questions, with our accumulated knowledge of the subject, is not difficult; the problem is to obtain immediate and necessary social action to restore the shattered framework of our banking system and to recreate the evaporated deposits.

SESSION ON THE TARIFF

TARIFF REFORM: THE CASE FOR BARGAINING

By PERCY W. BIDWELL
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Tariff reform, meaning tariff reduction, after twenty years of quiescence, is again a live issue. Its resurrection is one of the manifold by-products of the depression. Two and one-half years of falling prices, unemployment, and bank failures following the enactment of the Smoot-Hawley tariff have demonstrated that "protection" and "prosperity" are not synonymous. In fact, in a large section of the public mind high tariffs are now closely associated with business depression. During the present presidential campaign the Democratic leaders did their best to break this association of ideas even closer. Economists have done their part, and some business men, too, have denounced the exaggerated protectionism of the Smoot-Hawley tariff as responsible for deepening and prolonging the depression. It would appear, therefore, that the present is an opportune time to initiate tariff reform.

But the practical difficulties in the way of tariff reduction are many and are not easily overcome. During a period of trade stagnation tariff beneficiaries oppose bitterly all attempts to reduce their protection. To the man in the street, seeing only the effect on imports but neglecting exports, it would seem as if tariff reformers were planning to add to the already staggering burden of unemployment. Everyone knows that even in prosperous times tariff revision causes business uncertainty; during depression might not the threat of increasing competition from abroad nip in the bud the tender flower of business recovery? To economists it is true might indicate numerous tariff items that could be reduced without serious results, but American business men have always attached exaggerated importance to tariff protection. And it is a fact that no important revision downward of tariff rates has ever been made during a period of business depression. On the contrary, hard times regularly stimulate the demand for higher tariffs and the depressions of 1893-96, 1907, and 1920-21 were followed by upward revisions of rates.

In fact, the present Congress in its first session levied new duties on alcohol, oil, copper, and lumber. The depreciation of foreign currencies is a feature of the present depression which offers an added obstacle to tariff reduction. During the past twelve months additional duties to meet exchange dumping have been insistently demanded by numerous American industries. Difficulties and obstacles such as these could be overcome if the party which will assume power in March, 1933, were in favor of tariff reduction. But since the Underwood Act was passed protection has made large inroads into the Democratic ranks.

Recognition of the fact that in the present business and political situation general tariff revision by Congress is not only impossible but undesirable from many points of view is responsible for the new direction of tariff reform. In the bill (H.R.6662) introduced by Representative Collier at the first session of the present Congress three proposals were made: (1) the abolition of the president's power to change rates of duty under the so-called flexible provisions; (2) an international conference to consider lowering of excessive duties, the abolition of prohibitions, quotas, and other emergency restrictions; and (3) the negotiation with foreign governments of reciprocal trade agreements under a policy of mutual concessions. This bill comprised the hopes and aspirations of the tariff idealists in the Democratic party. It passed both houses without important modification of its principal features (except for the provision for congressional ratification of all treaties concluded). President Hoover vetoed it and the veto was sustained.

But the reform program was not finally disposed of by the presidential veto; it reappeared as the tariff plank in the Democratic National Platform, which read: "We advocate a competitive tariff for revenue, with a fact-finding tariff commission free from executive interference, reciprocal tariff agreements with other nations, and an international economic conference designed to restore international trade and facilitate exchange."

In the campaign, the part of the reform program receiving special emphasis was the proposal for reciprocal tariff agreements. This was usually spoken of as "reciprocity" or tariff bargaining. Governor Roosevelt urged tariff reciprocity in several of his addresses. At Seattle he advocated "a tariff policy based in large part upon the simple principle of profitable exchange arrived at through negotiated tariffs with benefit to each nation." Various exporting interests took up the cudgels for tariff bargaining as a measure to remove retaliatory tariffs which they believed were keeping American products out of foreign markets. A World Trade League was formed in New York for the purpose of advocating tariff bargaining.

Considerable publicity was given President Nicholas Murray Butler's support of the new policy. In an address before the Economic Club of Chicago, April 15, 1932, President Butler said, "If the American government would begin promptly the negotiation of reciprocal commercial treaties with other great industrial nations, treaties drafted with a view to bringing about very substantial reductions of prevailing rates of duty, great gain would result both at home and abroad. Other countries would with certainty eagerly follow the lead of the United States."

I should like to consider now what is implied by tariff bargaining

reciprocity and what their possible uses may be in the present situation a popular usage the terms are synonymous; specialists, however, to the classification established by the United States Tariff Commission in its report of 1919 on *Reciprocity and Commercial Treaties*. We use the term "reciprocity" in a special sense to denote a commercial agreement of an exclusive character between a pair of countries. In our experience reciprocity treaties have been influenced strongly by special circumstances. The Commercial Convention of 1902 between the United States and Cuba is a good illustration. Such agreements we have said are usually exclusive in character. The concessions contained in them are not automatically generalized to other nations through most-favored-nation clauses. "Tariff bargaining," on the other hand, is a more general term. It has been used to describe all of the deals, including offers of concessions and threats of penalties, by which a nation strives to secure more favorable treatment for its commerce at the hands of other nations. Bargaining may have as its object specially favored treatment and may lead to mutual reductions of duties or it may aim at the removal of discriminations. In the latter case the object is merely to secure equal treatment. Since nations of the world generally pledge to each other equal treatment in commercial relations, the aim of bargaining is usually the reduction of duties by mutual concessions, but these are not necessarily exclusive concessions. In 1922 the tariff laws of the United States have provided for the reduction of penalty duties as a means of enforcing equality of treatment. Usually we do not think of that as a bargaining device. The proposal for tariff bargaining is a new departure in that it contemplates a reduction by the United States of concessions from its statutory rates in exchange for equivalent concessions from other countries. In the face of the proposal is attractive. The method of concession seems to breathe a mild spirit into an atmosphere now surcharged with reaction and strife. Furthermore, tariff bargaining is almost universal, says Continental nations have long practiced it, and even in England which long maintained a single-column tariff, the Board of Trade has been authorized to make concessions from the new protectionist duties for bargaining purposes.

Tariff bargaining has often been condemned for the reasons which President Hoover gave in his veto message of May 11; namely, that the process involved complex and long drawn-out negotiations without resulting in any important benefits with respect to foreign trade. This view finds support in the significant report of the United States Tariff Commission to which I have already referred. The Commission's survey of the history of American commercial policy showed that tariff bargaining had accomplished little. The Commission emphasized particu-

larly "troublesome complications which the policy of special arrangements inevitably produced." It spoke of unpleasant controversies and international friction. Congress adopted the Commission's attitude, and in the Act of 1922 no provisions for tariff bargaining were incorporated. It is worth observing, parenthetically, that among the considerations which moved the leaders in Congress to reject bargaining was one which the Commission did not stress and of which it would not have approved. The political watchword at the time was "return to normalcy" and in foreign affairs normalcy meant isolation. With such an attitude a single-column tariff was more in accord than a bargaining tariff.

I shall not attempt to go over again the ground which has been so well covered in the Commission's report. I think we may take for granted that the facts which are set forth there are accurate and the conclusions which the Commission drew from them were warranted at that time. But in the thirteen years which have elapsed since the Commission's report was published, changes of great significance have occurred both in the commercial policy of the United States and in our economic relations with foreign countries. I wish to examine now whether these changes warrant reconsideration of our attitude toward tariff bargaining. Is it possible that, if the same Commission were preparing a report for Congress in 1933, its conclusions might be different from those of 1919?

In 1919 we had just emerged victorious from a world war. For five years our export trade had been experiencing unheard-of prosperity. Exporting firms had no difficulty in selling anything and everything in the markets of Europe, Latin America, and Asia. Prices were sky-high and there was as yet no indication of the approaching crisis of 1920 and 1921. Our foreign investments had been swelled by the war-time loans but were still modest compared with the (nominal) value of our present holdings abroad. Then came the boom of 1922-29. Stimulated by an aggressive policy of government aid, our manufacturing industries found new possibilities in foreign markets. Liberal lending by American investors gave foreigners the means of paying for enormous quantities of American goods.

But this happy situation has now disappeared. The stoppage of the flow of capital to European and South American countries has dried up their purchasing power. Debtor countries in their efforts to balance their international accounts have taken drastic measures to reduce imports. European countries have raised tariffs as a measure to protect agriculture and in the hope of reducing unemployment. Thus government action has accentuated the decline in prices and in the volume of international exchanges. American exports have been hit severely.

World trade declined 40 per cent in the years 1929-31 and American exports fell off 53 per cent. The value of American goods exported in 1932 was \$1,618,000,000 as compared with \$2,424,000,000 in 1931 and \$3,843,000,000 in 1930. It is obvious that for the American exporter the situation in 1933 is far different from 1919.

In 1919 the change in the position of the United States in international finance from a debtor to a creditor nation, the world's greatest creditor, was under way, but the process was not fully accomplished and the implications of the change as respects commercial policy were not fully appreciated. A new reason for tariff reduction has now arisen. The American investor in foreign securities has joined the American exporter and the American consumer in demanding lower duties on foreign goods. How else can interest and capital repayments be received?

Let me say at this point that to my mind neither the decline of American exports nor the plight of the American holder of foreign securities are the facts of chief significance. The new economic situation which in reality justifies a reconsideration of bargaining is the general collapse of international trade. The policy which at this juncture will in the long run be of greatest benefit to any country is the policy which fits in best into co-operative action for world recovery. We must consider therefore whether a change of policy by the United States might not induce or at least facilitate a general relaxation of trade restrictions throughout the world.

Since 1919, the American government has inaugurated a new commercial policy or perhaps I should say that it has given a new and more formal expression to a policy which had been in process of development for some time. I refer to the announcement in 1923 of the policy of "equality of treatment." The policy has found practical expression in the adoption in all commercial treaties and executive agreements concluded since that date of the most-favored-nation pledge in its unconditional form. Another feature of the new policy was the provision in the Tariff Act of 1922 (re-enacted in the Act of 1930) of penalty duties as a means of protecting American commerce from discriminatory treatment by foreign countries. In this new set-up, bargaining found no place. In fact it was frankly rejected. The United States offered equal treatment to all and insisted, or attempted to insist, upon receiving equal treatment from all.

Two questions arise at this point: (1) Is there a conflict between the policy of equality of treatment and the policy of bargaining? (2) If such conflict exists, is it worth while to modify our policy so as to harmonize it with bargaining practices?

There is no necessary conflict, it seems to me, between bargaining and the use of penalty duties to protect American commerce against

discriminatory treatment by foreign countries. As a matter of fact the determination of what constitutes discrimination is such a nice matter, and the penalty duties are regarded as such a drastic measure, that they have never been used. At present the use of import quotas, exchange restrictions, and the like, have upset the old criteria of equal or fair treatment, making the proof of discrimination practically impossible. It is quite possible that under these abnormal conditions, supplementing penalties with bargaining might produce better results than have been secured by the penalty method alone.

In discussing the relation of bargaining to the policy of equal treatment, two features of this policy should be distinguished: (1) the single-column tariff and (2) the unconditional treaty. Should we, in the present state of our treaty relations, adopt a bargaining policy, our single-column tariff would be replaced, at least temporarily, by one with two or more columns of rates. But this situation would not arise because we had abandoned the policy of equal treatment but because we have as yet been unable to carry it out more than fragmentarily, as I shall presently explain.

More significant than the form of tariff schedules as a vehicle of our policy is the use of the unconditional form of commercial treaties. At present only eleven such treaties are in force with the following countries: Austria, China, El Salvador, Germany, Honduras, Hungary, Latvia, Norway, Turkey, and Yugoslavia. Of these countries only China and Germany afford markets of first-class importance. Other great trading nations have not been attracted by our offer of equal treatment, accompanied as it has been by high and rising duties.

In principle, it should be recognized, the giving and receiving of mutual concessions from established rates of duty is not inconsistent with the pledge of unconditional most-favored-nation treatment. This is the view of the United States Department of State expressed in reply to an inquiry from Senator Walsh with reference to the treaty pending with Norway.¹ But, as the Department pointed out, the concessions granted must not be exclusive. This is the essential difference between the old and the new treaties. And thus the use of the unconditional clause removes one of the major objections to tariff bargaining. As long as the United States insisted upon the use of the conditional clause, concessions from rates of duty were almost of necessity exclusive in character. This kind of bargaining was justly condemned for creating bad feeling among those nations who were not allowed to share in the reductions.

Under our new policy the benefits of any reductions achieved by bargaining would be automatically extended to each of the twenty-seven

¹ *Congressional Record*, 72 Cong. 1 Sess., Vol. 75, No. 90, April 5, 1932, p. 7664.

countries to whom we have unconditionally pledged, by treaties and executive agreements, most-favored-nation treatment. Also, there is reason to expect that as soon as bargaining was adopted the number of unconditional treaties would increase, for foreign countries would then find it more worth while to enter this relationship with us. So far, then, from being in conflict with the policy expressed in the unconditional treaties, bargaining may be made an instrument of furthering that policy.

A second innovation in American tariff policy dating from 1922 raises a new and embarrassing obstacle to the re-introduction of bargaining practices. I refer to the so-called "flexible provisions" which first appeared in the Fordney-McCumber Tariff and were re-enacted with unimportant modifications in the Smoot-Hawley Tariff. These provisions give the president power to increase or decrease any rate of duty if an investigation by the Tariff Commission shows that the existing rate does not equal the difference between the domestic and the foreign costs of production. "Flexible" is a misleading word when applied to this scheme. In reality Congress laid down a rigid mathematical formula strictly limiting executive action in changing rates.

Cost equalization and bargaining seem difficult to harmonize. Obviously, absurd situations might arise if the president should continue to adjust rates to cost differences and Congress should set up an agency of its own to conduct bargaining negotiations. By concentrating in the executive the power of effecting both sorts of tariff changes, the conflict of powers would be avoided, but a conflict of principle would remain. This is not merely a priori reasoning. At least one instance is on record of an attempt to combine bargaining with cost equalization. In 1927 and 1928 during the tariff controversy with France, the American government promised by way of concession to submit to its Tariff Commission applications from French exporters for reduction on certain rates of duty. The applications were duly submitted to the Commission, but no cost investigations were ever instituted and no rates of duty were reduced. The narrow statutory limitation placed on the Commission's action made practically impossible the satisfaction of the French requests. The statute required, for example, that costs in the chief competing country should be ascertained and compared with American costs. The French request for reduction in the duty on peanut oil, therefore, would have had to depend for its satisfaction upon the investigation of costs, not in France but in China. In the case of silk velvet and plush ribbons, there was no domestic production of comparable articles and hence no cost study was possible, and the Commission could afford no relief. Finally there was always the embarrassing possibility, in those cases in which cost comparisons were possible, that

the Commission as a result of its investigations would find that a higher not a lower duty was necessary to equalize cost differences.

The authors of the Collier bill may have recognized that simply to superimpose tariff bargaining upon existing law would produce serious complications. But I suspect that other reasons explain their proposal to abolish the president's power to change rates of duty. According to their plan, which was in substance the amendment proposed by the late Senator Simmons to the Smoot-Hawley bill, applications for rate changes would still be received and investigated by the Tariff Commission but its reports would go to Congress which would exercise final power over rate changes. It is well recognized that the flexible provisions in the Act of 1922 never produced satisfactory results, and the modifications of the Commission's powers in the Act of 1930 amounted to very little. Of more importance was the reorganization of the membership of the Board. The new Commission has done much valuable work of a general investigational character, but as far as rate changes are concerned the experience of the past thirty months affords no ground for expecting that administrative rate making by the cost equalization formula will ever produce worth-while results. In the first session of the new Congress a bill proposing the reform of the flexible provisions along lines similar to those laid down in the Collier bill probably will be introduced. If the bill passes, Congress will resume full powers over the tariff and thus one of the principal objections to bargaining will have been overcome.

There is no opportunity here to discuss in detail the methods of bargaining. A suggestion made by Hon. David J. Lewis, formerly a member of the Tariff Commission, now a Representative in Congress from Maryland, has interesting possibilities. He has proposed that the United States should offer a flat reduction, say of 10 per cent, from its tariff to any and all countries that would be willing to make equivalent concessions. This suggestion has the merit of simplicity. It defines once and for all the extent of the American concessions. In fact it sets up a second schedule of minimum rates in addition to the rates now in force, which would then become the maximum tariff. Bargaining would ensue only in order to determine what concessions each foreign country should give from its tariff. A simple solution of this problem would be to insist that each foreign country should grant to the United States in return a 10 per cent reduction. Mr. Lewis suggests that the United States should re-enact our 1913 Tariff and as compensation other nations should go back to pre-war rates.

The existence of eleven unconditional most-favored-nation treaties and executive agreements with sixteen foreign countries introduces an element of complexity. As soon as any country accepted the American

proposal, each of the twenty-seven countries to whom we have pledged conditional most-favored-treatment, would have the right to demand minimum rates and without compensation. They would benefit by reduction of the American tariff without being under obligation to reduce their own tariffs. Also, as soon as a single country had received from the United States a gratuitous concession, each of the fourteen countries to whom we are bound by conditional treaties could claim the benefit of the concession and without compensation. In order therefore to give maximum effect upon foreign tariffs to the American action it might be desirable first to terminate all executive agreements and then to invite all countries with whom we have unconditional treaties to conclude a new multilateral treaty by which concessions would be exchanged. Upon the conclusion of such a treaty no country not a party to it could benefit by the American willingness to reduce tariffs without itself making reductions. Also, through the operation of unconditional treaties with other countries many of their concessions to the United States could be generalized.

Finally, there are about fifty countries, including all of the British self-governing commonwealths, with which the United States has concluded no commercial treaties. As far as the new bargaining scheme was concerned, these countries would be in the same position as those with conditional treaties. They would have no claim to the minimum rates without making reductions from their own tariffs and when they did so any of such reductions would be perforce extended to other countries.

I have entitled this paper, "The Case for Bargaining." Its limited scope does not allow me to discuss in detail several substantial arguments against the practice, arguments which the pleas of changed economic conditions and changing commercial policy do not readily dispose of.

It must be admitted that our constitutional separation of executive from legislative powers handicaps the American government in the negotiation of commercial treaties. Also it must be admitted that when a nation enters upon a bargaining policy there arises a tendency to set up artificially high rates, thus reducing the value of subsequent concessions. For this reason, tariff bargaining is not necessarily synonymous with tariff reduction, as is shown by the recent history of European commercial policy.

But it is my contention that given the will to reduce tariff barriers, bargaining facilitates and generalizes the reductions. Bargaining, I believe, may be made a means of hastening the reduction of the American tariff, a process difficult of accomplishment in any other way. I should not anticipate that the concessions secured from foreign countries would be sufficiently numerous or important to lead directly to a significant improvement in our exports. Perhaps the most significant immediate

gain for our exporters would be the removal of discriminations against American goods in Canadian, French, and Spanish markets. Nor do I think that American consumers would derive large immediate gains from the entry at lower rates of foreign goods.

But the indirect gain might be far greater. I am thinking about the effect on world tariffs of the American action. The attitude of the United States, I am convinced, has more effect on European and on world tariff policies than our own Congress has ever suspected. In 1928 and 1929 the news that an upward revision of the American tariff was impending was responsible to no small extent for checking the movement in Europe toward tariff reduction. A decisive move now by the United States toward lower tariffs might be the force needed to break the world's tariff jam. It would certainly strengthen the hands of those who the world over are working for the reduction of trade barriers and the removal of restrictions. To put strings on our action, to make reduction dependent on bargaining, would seem to lessen its moral force. Possibly so. But a more than compensating gain, in my opinion, is that bargaining if at all successful will set in motion a series of concessions which through treaty relations must be generalized and thus to the moral force of the American action is added the force of international obligations.

DISCUSSION

ERNEST MINOR PATTERSON.—Mr. Wright has summed up his argument in his closing paragraph: "The nations of the world have engaged themselves by a solemn pledge not to use war as a means of settling international disputes. Unrestrained liberty in tariff making tends to make the keeping of this pledge impossible. Tariff making should be subject to international law."

Mr. Bidwell also contends that our tariffs are too high and hunts for an approach toward reduction. He believes that "a decisive move now by the United States toward lower tariffs might be the force needed to break the world's tariff jam." Although he feels that "to make reduction dependent on bargaining would seem to lessen its moral force" there is a more than compensating gain in that "bargaining if at all successful will set in motion a series of concessions which through treaty relations must be generalized and thus to the moral force of the American action is added the force of international obligations."

There are thus certain points in which the two papers agree. Both writers hold (1) that our tariffs are unduly high and (2) that the approach to adjustments downward should be through international action. Mr. Wright argues that tariff making should be subject to international law while Mr. Bidwell favors attempts at bargaining in the hope that a network of international agreements will come into existence, binding the signatories to a reduction in the obstacles to trade.

A possible next step in the discussion is to ask ourselves: (1) will this international approach bring the anticipated results; (2) does not the present position of the United States warrant a reduction of her tariffs regardless of what other countries may or may not do; and (3) in what manner can effective action by Congress be secured?

It is appropriate to stress the value and the practicability of international action. Through it much has been accomplished and doubtless much more will be accomplished in the future. We usually extol its merits by contrasting them with the excesses of economic nationalism. Thus presented the case seems clear but observation of international efforts in recent years suggests that we should not be blind to its limitations.

There are three results and only three that can be secured in this way, whether the approach be through commissions or general conferences or through the ordinary diplomatic machinery. One is that a frank exchange of views often shows a complete harmony of interests that had not before been realized. When this harmony is discovered there is often only slight difficulty in reaching agreement regarding the appropriate action.

A second consequence is that negotiations often make vivid actual differences of interest and confirm the negotiators in their national enthusiasms. And there are actual differences of interest in many matters—not imaginary differences based upon incomplete knowledge of the facts, but real ones. The more information there is available the more vividly the conflict of interest is realized. It is not always to British advantage—either direct or indirect—for the French to withdraw as much gold from Great Britain as

the French find it advantageous to take. Nor can the French with economic gain to themselves import as much British coal as the British would find it worth while to sell in France.

A third consequence of international negotiation is that mutual concessions may be made. The Germans may agree to take more French wine than is advantageous to Germany provided the French will take more German steel than they really care to receive. The gains derived by each in this arrangement may more than offset the losses.

Stated differently, we may say that in much discussion of international questions we are assuming a harmony of interests that is strongly reminiscent of Bastiat and others. The two papers do not commit this error but we may supplement them with a reference to the limitations of what their authors propose. In the field of labor relations we do not insist that employers and employees have interests that in no way conflict. We acknowledge that some of their interests are mutual but proceed on the further assumption that there is a vast area within which their interests differ. In international matters we have a set-up in which the people in each national area have so organized their affairs that in many situations no real harmony can be discovered between the national groups concerned.

This does not mean that the international approach should not be employed but merely that we must not expect too much of it. There are cogent reasons why its limitations are particularly sharp at present. Business is increasingly dynamic. Changes in organization and method, new products and devices—all come with growing rapidity, harassing and perplexing not only the business man but also any outsider who dispassionately observes business problems. Larger-scale production with heavy overhead costs and often with multitudinous by-products, tends to intensify competition. Unstable currencies and exchange dumping furnish still another complication. With these and other influences at work stability is extremely difficult to secure and maintain. We may allege that market stability cannot really be secured through more and more trade restrictions but we need not be surprised if the business man seeks it in every possible way.

If time permitted suggestions could be made regarding several other lines of effort, but we may instead argue briefly that under present conditions the United States can afford to proceed alone. Through bargaining some concessions may be secured but it is very doubtful. Negotiations will be very prolonged and may yield little but disappointment.

The position of the United States is a peculiarly difficult one. From 1914 to 1920 our relation to the rest of the world was altered. We became creditors suddenly, not slowly through decades with time for gradual adjustments of our economic structure. Before the war we were apparently working out of the mature debtor stage into that of an immature creditor. This meant an economic structure adjusted to an excess of exports. The war placed upon us the burden of increasing our exports but tended to restrict imports. By 1920 we were geared to export still more goods and services but not to import goods and services. Yet we had suddenly become creditors.

Instead of systematically and rapidly adapting ourselves to this new

relationship, we made little or no attempt at adjustment. In fact, the task would have been an appalling one and perhaps impossible of accomplishment. Our procedure was not surprising. We pressed exports, visible and invisible, through both private and public effort while restricting imports in a variety of ways. We checked immigration, thus reducing the volume of immigrants' remittances, continued to develop our own merchant marine, financed our foreign transactions more and more with the aid of domestic bankers and insurance companies, and raised our tariffs in 1921, in 1922, in 1930, and in riders to the Revenue Act of 1932. All this was possible because of our willingness to accept a large amount of foreign promises to pay.

By 1932 we have made no appreciable progress toward adjustment. One procedure is that proposed by the advocates of economic self-sufficiency—of "autarchy" as the Europeans are calling it. This will probably be only a passing vogue since world economic currents are so strong. The other procedure is to attempt a freer receipt of imports, notably by a modification of our tariff schedules. The situation is so acute that this should be done even if no concessions can be secured from other countries.

Two comments about it should be made. One is that there is no such thing as adjusting ourselves without some loss. A lowering of tariffs may mean losses to many American producers who rely chiefly on the domestic market and who will suffer from an increase in the imports of competing goods. Yet maintenance of trade barriers curtails the foreign markets for many producers who rely on exports and who have little or nothing to fear from competing imports. To such an extent is this true and so great are its ramifications that the aggregate result of lowered schedules would be a stimulus rather than a blow to most lines of business. Also trade barriers reduce the payments from abroad to the American investors in foreign securities, and their reduction would make possible greater remittances on account of interest and principal.

It is not a question of preventing losses but of deciding (if a calculated decision is really possible) how to minimize the losses. Nor, may we say in passing, is the argument entirely one-sided, as many doctrinaire free traders seem to think. It is interesting to notice that many of our most enthusiastic advocates of national economic planning seem anxious not to plan the ebb and flow of goods and services in foreign trade. Apparently they are planning not to plan at all in this field—or perhaps leave it to the people and governments of other countries.

If we assume that we desire to adjust ourselves to our creditor position and to concentrate at least some of the loss on certain producers for the domestic market by lowering tariffs, what procedure should be followed? Two suggestions may be made.

The first is that we shall probably not get very far by talking in broad terms about the general advantage. Certainly we shall accomplish little if our appeal is to the "public" or to the consumers or to other groups real or fanciful whose interests may be suffering at present. Nor is there any hope of support from geographical regions such as the West or the South, since so many of their industries are now protected.

Instead an appeal may more effectively be addressed to certain economic groups which are not located in any special section of the country but are scattered through all sections. There are three important groups. One is made up of those who produce primarily for the domestic market and are interested in articles that may quickly suffer from imported merchandise if certain tariff schedules are reduced. Even they would gain a great deal from the stimulus to general business which will follow a loosening of trade restrictions, but this is not always easy to appreciate in advance and this group will probably oppose reductions and even press for higher duties.

Those who are producing more and more for export are a second group, while investors in foreign securities are a third. These two are increasingly conscious that they cannot be paid unless their debtors can find dollars and that dollars can be found only if trade barriers are modified. There are already signs of organized effort among them, with a view to securing further reduction of the war debts and lowered tariffs.

A second comment is in the form of a warning. High tariff advocates regularly challenge their opponents to indicate particular commodities or industries now protected that do not need such help. This is, of course, not possible except in rare cases. Where protection has been granted the industry concerned adjusts itself to the assistance given and its withdrawal is at least an immediate disadvantage. The approach must not be by questioning particular rates of duty but by examining the whole policy—by a general rather than by a specific attack.

E. GROSVENOR PLOWMAN.—Dr. Phillip G. Wright's paper summarizes the need for control of international economic warfare. He makes the point that the renunciation of war has uncovered the problem of economic warfare. He states that economic warfare between the nations can be as destructive as physical warfare. This suggests a basic principle, that, if we renounce a weapon of great force such as physical warfare, we may expect human ingenuity to devise ways of increasing the destructiveness of lower powered weapons such as economic warfare. We have seen this principle work out in the field of warfare as well, for instance, in the development of the German "pocket" cruisers caused by their forced renunciation of the battleship.

Within the United States, physical warfare has long since been renounced. Furthermore, we have also renounced tariff warfare between the states and between the United States and certain other countries and areas, such as Porto Rico, Cuba, and the Philippines. This renunciation, not only of physical warfare but also of tariff warfare, has resulted in the transfer, through the process suggested above, of force and destructiveness to such weapons as boycotts and campaigns of prejudice. We have seen illustrations of this in the prolonged warfare between beet and cane sugar and between domestic butter and oleomargarine made from tropical oils.

It is, therefore, pertinent to remark that the development of Dr. Wright's proposal to eliminate the use of tariffs in economic warfare through some form of international control and development is likely to result in intensifying economic warfare between the countries through the next lower grade

of weapons such as boycotts and campaigns of prejudice. Dr. Wright's proposal is simply another step in a long series of steps which must be taken to substitute negotiation for warfare.

FRANCIS TYSON.—May I raise a question about the optimistic sentiments expressed by Professor James Harvey Rogers yesterday and by Professor Bidwell this morning concerning the likelihood of any easy congressional acceptance of lower tariff schedules in the near future? Is their commendable viewpoint not a bit unrealistic politically? Despite the great technical difficulties, workable formulae of international reciprocal agreement, looking toward recovery through lowered trade barriers, may be developed; but the prospect of their acceptance, it seems to me, is none too bright.

Let me reiterate Professor Bidwell's point about the fact that no general reduction of the tariff has occurred in our history during a period of general depression. And may I remind you that even those Democratic senators who are enlightened on the economics of the tariff voted for raw material increases recently, as was the case earlier with the Smoot-Hawley bill? These included not only Senator Robinson of Arkansas, the Democratic leader, but also Senator Thomas J. Walsh of Montana, who evidently was hard pressed by the copper interest of his state—a clear-cut reflection of pressure from constituencies "back home." May I point out that the Democratic campaign speeches, with few exceptions, were confused, and not often consistent on the question? Let me call attention particularly to the spread of protectionist sentiment with the new industrial revolution in the South, especially in the textile and iron and steel industries.

I need not remind you of the lack of definite effect of the economists' memorial on the issue; nor should we underestimate the strength of the organized high tariff propaganda in the United States, and the announced intention of influential senators to raise existing schedules farther to limit foreign competition. Senator David A. Reed of Pennsylvania, for instance, has proposed increases in iron and steel schedules, apparently on the basis of the effects of the depreciated currencies abroad. Moreover, only a few leaders of industry, in the fields of motors, electrical equipment, and other export industries, really favor lowered duties. The great majority of industrialists, especially in iron and steel, metals, pottery, glass, and textiles, are antagonistic to downward revision. They do not share the viewpoint of an increasing number of bankers on the subject; the latter, of course, now accept and support the economists' position on tariff revision.

Finally, the lack of preparation of what was called by Professor Bidwell the "public mind" (euphemistically, I presume) on this issue, as in other difficult problems of international relations, is only too evident. The lack of understanding, and the inarticulateness, as well as the weakness of organization, of the American consumer and worker render it practically impossible for the masses to follow their own interest, and to benefit by tariff reduction and international co-operation.

SESSION ON REAL ESTATE SPECULATION

SPECULATION IN SUBURBAN LANDS

By ERNEST M. FISHER

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Around the fringes of all urban areas of any size lies the territory into which the distinctly urban uses of land must expand as the community grows. This area has very appropriately been called the "penumbra" of the urban community.¹ It originally consists of lands in distinctly rural uses such as agriculture or forestry. As the circumference of the urban community expands and approaches this land, the uses to which it is put undergo a change. Extensive farming gives way to truck gardening or to golf or other recreational uses. In anticipation of the arrival of the more intensive urban uses, the value of the land increases and taxes mount proportionately. Here and there patches are definitely withdrawn from the rural or semirural uses, platted in small units served by common means of access, and offered for sale as building sites. Frequently the public utilities necessary for urban uses are at least partially installed and completely promised, plans are presented for the development of such community activities as schools and churches, and houses and business premises are built.

These patches of development are widely scattered through the penumbra of the urban area, frequently without relation to one another or to the urban community as a whole. They are isolated nuclei which gradually grow by the process of accretion, absorbing more and more of the penumbra until their borders meet. When the whole of the area has been absorbed into one or the other of the nuclei, it becomes a part of the original urban community.

Thus, the advance of urban uses into the penumbra is by no means a steady or uniform one; the urban uses do not, as might be supposed, creep out into the penumbra at an even pace. They sometimes leap over considerable stretches of territory to establish themselves at spots removed from the fringe of existing uses, leaving the intervening area to be filled in slowly.

There are, then, two distinct phases of the growth of urban uses in the penumbra: one is the expansion stage during which the new nuclei are being established, and the other, the filling-in stage during which the interstices between nuclei are being absorbed. There is little information regarding the length of time which elapses in these phases, but such scant data as have been compiled indicate that it is between fifteen and

¹ See Herbert D. Simpson and John E. Burton, "The Valuation of Vacant Land in Suburban Areas," *Studies in Public Finance*, Institute for Economic Research, Chicago, 1981, p. 2.

thirty years. It probably varies from community to community as the influences affecting the growth of the community vary. In terms of platting and sales activity, the data possess a high degree of periodicity, reaching high points during the period of expansion and dropping abruptly to extremely low points. As absorption of the interstitial areas proceeds, platting and sales activities rise very slowly until another period of expansion arrives. Thus the data reveal marked cyclical characteristics, but the cycles are longer than in the more familiar economic series.

The most pronounced peaks in this activity closely coincide, however, with the peaks in general business activity; and the most abrupt declines in platting activity have occurred at the time of our severest business depressions. For example, platting activity in the Cleveland metropolitan area reached great peaks in 1856, 1873, 1891, 1903, and 1926; it fell to the lowest points in 1861, 1878, 1896, and 1930. Activity in the Chicago area reached previously unprecedented heights in 1837, 1874, 1891,² 1910, and 1926.³ Milwaukee experienced booms in 1837, 1857, 1875, 1892, and 1926;⁴ Toledo in 1855, 1874, 1890, 1916, and 1925;⁴ Alameda County (San Francisco), California, reached peaks of subdividing activity in 1877, 1891, 1908, and 1925;⁵ Detroit's subdividing peaks have come in 1836, 1857, 1873, 1891, 1916, and 1925;⁴ those in Grand Rapids, Michigan, in 1857, 1872, 1890, 1906, and 1926.⁴ Thus all the major crises since 1850 have been accompanied very closely by peaks and crises in subdividing activity.

It is during a relatively brief period when subdividing activity is reaching its peak that the sorties far into the penumbra are made and the new nuclei established; during the long period of slight activity, the interstices are slowly filled in. The period of explosive expansion precedes or coincides with the rise of general business to a crisis.

This period of expansion has been consistently accompanied by widespread speculation in suburban lands. In the earlier history of the country, speculation in urban and suburban lands centered principally in projected cities laid out, at least on paper, in locations which were "destined to be great emporiums of trade, industry, and commerce."⁶ Recently

² An interesting description of the boom in Chicago in 1891 and 1892 will be found in H. Morton Bodfish, "Real Estate Activity in Chicago Accompanying the World's Fair of 1893," *Journal of Land and Public Utility Economics*, Vol. IV, No. 4 (November, 1928), p. 405.

³ These statements are based upon data from an unpublished source.

⁴ See Ernest M. Fisher, "Real Estate Subdividing Activity and Population Growth in Nine Urban Areas," *Michigan Business Studies* (1928), Vol. I, No. 9.

⁵ See Lewis A. Maverick, "Cycles in Real Estate Activity," *Journal of Land and Public Utility Economics*, Vol. VIII, No. 2 (May, 1932), p. 191.

⁶ For a description of some of the speculative ventures in land during the early history of the country, see A. M. Sakolski, *The Great American Land Bubble* (New York, 1932).

something of the same sort of speculation took place in Florida; but for the most part, during the present century and much of the last half of the preceding one, speculation in suburban land has centered in the penumbra of already well established communities.

In these areas speculation takes two distinct forms; the first is speculation in acreage or accommodation land; and the second, in subdivided lots. In both these forms, speculation is difficult to identify with certainty; for as in other types of transactions, the intent of the purchaser is probably the basis of distinction between speculation and investment.⁷ Thus in many instances the same individual in the same transaction may be at one time a speculator and at another, an investor. To the extent that the motive in purchasing is gain from the enhancement in value, the transaction is speculative; to the extent that income rather than increment in capital controls, it partakes of the nature of an investment.

As a matter of fact, the purchase of acreage or accommodation land is in most cases almost wholly speculative. In periods of expansive booms, the price at which acreage sells increases with sometimes astonishing rapidity. In such cases, it is easy to interest individuals with considerable wealth in speculating on such increases. The usual procedure is to form syndicates for the purpose of buying tracts of land in the penumbra or taking options on them and holding them for increases in the price which someone will pay for them for the purpose of subdividing. In many cases, acreage "specialists" appear, who make it their principal activity to form such syndicates. Frequently these syndicates sell to each other, always at advancing prices, until a subdivider buys a tract and proceeds to subdivide it.

No data are available as to the extent of such operations or the measure of the increase in the price of land traceable to them. They are, however, very extensive during a boom period, and the increases in price are not infrequently in a single turnover as high as 100 per cent. Usually these transactions are kept quite confidential; the members of a syndicate are usually known only to the broker or specialist who manages the transaction and to each other, and prices paid and received by the syndicates are jealously guarded.

The best that can be said of this type of speculation is that those who engage in it speculate largely with their own money. They usually operate, however, with as little cash as possible, buying on as favorable terms as they can secure, thus being able to realize a large percentage of profit on capital invested. When prices continue to rise, they reap handsome profits; when the rate of expansion declines, they suffer heavy

⁷ Cf., Charles O. Hardy, *Risk and Risk Bearing* (Chicago, 1931), p. 137. Also, Lionel D. Edie, "Investment," *Encyclopædia of the Social Sciences*, Vol. VIII, p. 263.

losses. In many instances, however, acreage syndicates have paid as high as 800 per cent on capital actually invested.

Thus, from the point of view of the individual, speculation in acreage is extremely hazardous, but may bring large rewards. It results in very radical redistribution of wealth. When a venture is successful, the profits of speculators come from the pockets of subdividers or members of similar syndicates; and when the venture of these groups proves successful, the profits of the acreage speculator are loaded on to the selling price eventually asked for lots created from the acreage. Losses from unsuccessful ventures, of course, fall principally upon the speculators. From the point of view of society as a whole, there is merely a transfer of wealth; no new wealth is created, and little is lost by these transfers of ownership.

But, notwithstanding this fact, society does suffer from these operations in two distinct ways. First, the land involved is nearly always brown out of use and lies idle while it is being held by the speculators. This land is usually so situated as to enable it to render valuable services as ordinary farms, truck farms, or recreational land. Instead of receiving the benefits of such services, the community must see this resource lie idle. About the fringes of most large cities today lies a great belt of such idle land, grown up in weeds, delinquent in taxes, and derelict.

Society also suffers from the disruption of economic relations brought about by both the losses and the profits of acreage speculation. In many communities, some of the wealthiest and most prominent leaders upon whom the welfare of the whole community depended have been bankrupted by acreage speculation. Sellers to speculators have been disappointed in failing to receive expected and contractual incomes and have in turn been compelled to default upon obligations they had undertaken. Thus the economic relations in the entire community have suffered.

It is difficult to discover any economic function which this kind of speculation performs. It cannot be defended on the same grounds as an speculation in the usual forms. It does not serve as a regulator of the market, and but partially to transfer risk to a professional class of risk bearers.⁸ In fact, much of the risk involved is actually created by the speculators. In a sense, therefore, it is more nearly comparable to gambling than to the usual forms of speculation.⁹ There appears to

⁸ Cf., Allan H. Willett, "The Economic Theory of Risk and Insurance," *Columbia Studies in History, Economics and Public Law* (New York, 1901), Vol. XIV, No. 2, p. 184. Also Charles O. Hardy, *Risk and Risk Bearing* (Chicago, 1931), Chaps. IV, VII, and IX.

⁹ The owner of acreage, of course, has to carry some risk of a decline in price. But he is presumably utilizing the land until acreage speculation begins. His risk, therefore, lies in the possibility that he may not sell at as high a price to a subdivider as he can secure from acreage speculators. When the latter purchase the acreage, the price they demand is increased, the land is thrown out of a productive use, and the whole price they pay is based upon a speculative hope for further ad-

be no necessity for the intervention of acreage speculators between original owners and subdividers. They insinuate themselves into the situation and sit and wait for profits. When profits are realized, they are paid for their risk by higher prices that final users of the land must pay. If any economic function can be claimed for them, it consists of the very feeble one of assembling larger tracts than might otherwise be available. On the whole, therefore, this type of speculation in suburban land is to be condemned as socially undesirable.

The activities of the subdivider are of two distinct types: in the first place, he may be compared to a manufacturer whose raw material is acreage and whose finished product is the urban site ready for use; in the second place, he is a merchant who must sell his wares to the general public. The degree of risk involved in these activities depends very largely upon his methods of operation. In practice, two distinct methods are found. These methods suggest the classification of subdividers into two groups, one of which subdivides primarily to supply a need for new and additional building sites, the other for a market in which the new sites can be sold not for use but for speculation (called "investment"). The one who subdivides for use finds his market among those who propose to build a house or a business building promptly; the one who subdivides for a market sells to everyone who can be persuaded to speculate.

Some of the most notable achievements in community planning and building of recent decades have been accomplished by subdividers who were attempting to supply a need. Among these achievements the Country Club District of Kansas City, built by J. C. Nichols, and Roland Park, Baltimore, may be mentioned. This type of operation does involve risk, but in it risk is reduced to a minimum. The greatest hazard it encounters is that created by the speculative operator who floods the market and paves the way for a subsequent collapse.

It is this second type of operation that tends to enhance the risk involved; and to the degree that risk is magnified, the subdividing process becomes speculative for all operators. Thus under present methods of operation, the whole process is shot through with uncertainty and unnecessary risk. As a result, the profits from successful operations are swollen and the losses sustained from unsuccessful ventures are disastrous. The whole process needs, both from the operators' and the public's point of view, a thorough revision of practices and methods. The only purpose of subdividing activities, one would suppose, is to provide additional urban sites for use as the urban community grows and needs more space. The need for sites, in other words, would appear to

vance; thus the risk is enhanced. They stand to lose all their investment; the owner only to lose the margin between the value of his property for current uses and for speculative purposes.

e the criterion by which the extent of subdividing activity should be gauged, just as the manufacture of automobiles or shoes or any other commodity should be gauged by the most intelligent analysis possible of the need for the commodity produced. But the wider one's observation, the more certain is bound to be his conclusion that need for urban sites for use is never the controlling consideration with most subdividers and is, in many cases, not even considered. This fact accounts for the spectacular rises in the activity of the market and for its subsequent collapse and paralysis. The length of the cycles may be partially accounted for by the fact that it takes nearly thirty years to produce a new generation, which has to learn by pain and disappointment that while many fortunes may have been made through investments in real estate, many paupers likewise have arrived at their destination by the same route.

As a matter of fact, in most urban communities, the number of subdivided lots is nearly twice as great as the number in use; that is, for every lot in use, there is another lot vacant. In the Grand Rapids, Michigan, metropolitan area in 1931, 51,000 lots were in use and 40,000 vacant.¹⁰ The percentage of lots vacant has varied since 1909 from 38 to 45. In terms of population, there were 48 subdivided lots of record, per hundred inhabitants, and 24 per hundred in use. In Chicago, in 1928, there were 1,227,000 lots of record and only 668,000 in use.¹¹ In Detroit, in 1926, there were about 25 per hundred in use and 75 per hundred of record. In Cleveland, in 1926, there were 30 lots of record per hundred population, and probably not more than 20 per hundred in use. In Milwaukee, in 1927, there were 36 lots of record per hundred population, and probably not more than 28 per hundred in use. Finally, in Birmingham, Alabama, in 1927, there were 44 lots of record per hundred population, with probably 25 in use.

It may be assumed that the principal source of the need for new lots is population increase, but when the total number of lots subdivided in any large urban community between 1920 and 1930 is expressed in terms of increase in population during the decade, the absurd heights to which speculation led subdividers becomes apparent. Thus, in the Detroit area, from 1920 to 1930, the increase in population was 843,586, or 70 per cent; in lots subdivided, 622,498, or 100 per cent; or for every one hundred newcomers to Detroit about 74 lots were prepared. In Cleveland, from 1920 to 1930, over 112,000 lots were platted, an increase of 43 per cent. Population increased by 258,000, or 28 per cent; platting activity, therefore, added 43 new lots for every increase of one hundred persons. In the Chicago area, population increased from 1920 to 1928 by about 700,000, or 26 per cent; lots platted increased from

¹⁰ Ernest M. Fisher and Raymond F. Smith, "Land Subdividing and the Rate of Utilization," *Michigan Business Studies*, Vol. IV, No. 5.

¹¹ Simpson and Burton, *op. cit.*, p. 14.

1920 to 1926 by 448,000, or 84 per cent; and 64 new lots were available for every one hundred new inhabitants. In Grand Rapids, during the decade 1920 to 1930, the number of lots increased by over 84,000 or 60 per cent, while population was gaining 52,000, or 33 per cent and 65 new lots were available for every one hundred newcomers. But actually, one hundred newcomers to Grand Rapids during the decade used, on the average, only 24 lots. If utilization proceeded in Grand Rapids at the unprecedentedly rapid pace established during the decade it would be over twenty years before the present lots were used; and if utilization proceeds at the same pace at which it has proceeded since 1909, some thirty-five years will be required to bring the lots into use. Professor Simpson estimates¹² that even by 1960, population growth will have required the utilization of only 90 per cent of the lots now available in the Chicago area. In short, subdividing anticipates utilization by some thirty years, and the speculative subdivider sells his product for speculation. This fact makes his business exceedingly hazardous. For when the speculative frenzy dies, it takes a generation for the market to "come back."

The process by which sales are made is too familiar to need description. It is one in which high pressure salesmanship, cheap ballyhoo, and extravagant claims all play their part.¹³ The psychological characteristics of the market are typical of all speculative markets. The questions of use and value are entirely forgotten, and prospective purchasers are frequently "guaranteed" by glib and conscienceless salesmen that they can resell their properties within a few weeks, or months at most, at advances in price. Elaborate sales arguments are built up around statistics of city growth and especially the increases in value that have come to strategically located business sites. The inference is that all urban land increases in value and the purchaser has only to wait until the inside residential lot, remote though it may be from transportation and other factors that might enhance its value, and although it is one in hundreds that are almost identical to it, will also sell for thousands when he has paid only hundreds.

In blind obedience to the speculative impulse, literally thousands of the middle classes and of the laboring classes succumb to these arguments and purchase. Thus in nearly every urban community, between 1920 and 1926, thousands of these classes bought lots, paid 10 per cent down, and mortgaged their earnings for about ten years to pay the

¹² Herbert D. Simpson and John E. Burton, "The Valuation of Vacant Land in Suburban Areas," Institute for Economic Research, *Studies in Public Finance*, Research Monograph No. 2 (Chicago, 1931), p. 20 ff.

¹³ For a description of some of the more reprehensible practices see H. Morton Bodfish, "The Free Lot Subdivider: His Method of Operation and the Available Methods of Control," *Journal of Land and Public Utility Economics*, Vol. V, No. 1 (May, 1929), p. 187.

"deferred balance" with interest and taxes. In one case, which may be taken as typical, over 75 per cent of the residential lots in a large subdivision were sold to people who were not even residents of the county in which the subdivision lay. Residential lots in the suburban area of Detroit were then sold in all the states in the Great Lakes region, and as far south as Georgia. Washerwomen and Ford factory workers, school teachers and professional men were all proud to be counted as owners of Detroit real estate. Likewise, suburban lots in Chicago were sold throughout the Middle West, and those cities which were not exploited so widely enjoyed a big domestic boom in which nearly every family in their borders staked its hopes of prosperity and fortune upon vacant lots. And even as late as 1931, it was reliably reported that in a community of 80,000, a suburb of Detroit, over \$100,000 worth of vacant lots in Windsor, Canada, across the river from Detroit, were sold in less than three months.

As soon as the speculative subdivider has secured contracts for the purchase of the major portion of the lots in a subdivision, he purchases another piece of acreage, and repeats the process of platting and selling. He thus places himself in the remarkable position of openly competing with his own customers. He has the advantage of his customers, however, in two ways. First, he dominates the market. His salesmen and his advertising seek out every potential buyer of a vacant lot. They call upon builders, they canvass all the names in the telephone books and even ring doorbells so as to make their canvass complete. It is, thus, by almost a miracle that any purchaser in a previous subdivision finds a bona fide purchaser for his lot that was so "sure to increase in value." But so long as the big subdivision across the street or farther down the road is selling out, even at advanced prices, he is not likely to get restive. He has comparatively little invested as yet anyhow. But all the time he is paying on his land contract to the subdivider. Thus we find the second advantage of the subdivider in the speculative market: he not only competes with his own purchasers, but he actually gets them to finance his speculative competition.

But eventually something happens. The market becomes surfeited; a catastrophe visits the community or the whole nation; the speculative fever subsides; purchasers for profit become more and more restive and anxious to realize their profits; and the market collapses. With it the whole structure of credit involved in the operations becomes undermined and falls. Then usually the subdivider is trapped as well as his customers. For he has proceeded to larger and larger operations on narrower and narrower margins. His collections on early contracts fall off and he becomes unable to meet maturing obligations. Thousands of the unsubstantial and "fly-by-night" operators, who consistently follow

the speculative market from city to city and from state to state, disappear. Lots by the thousands are offered for the balance due on the contract, and there are no takers. Taxes, in the meantime, have risen to meet the costs of governing the vast stretches which have been "annexed" to cities and municipalities, and tax delinquencies appear. In some communities, land contracts have been used as collateral to bond issues that were sold to the public. Over 60 per cent of such issues in one large city area have defaulted, while tax delinquencies have occurred on as much as 47 per cent of the entire area of one of the municipalities in the vicinity of one of our largest cities. The savings of the thousands who speculated have thus been wiped out. Capital expended in the installation of streets, sidewalks, and public utilities lies idle and is rapidly disappearing, while only the miles of decaying sidewalks and reeling lamp posts remain to bear mute testimony to the speculative folly of both subdivider and "investor."

The social losses involved in this process arise from several sources; the first is the loss of the services of the land; second, the loss of the time and labor of the subdivider and his whole crew; third, the loss of capital invested in "improvements" which will either yield a very insignificant return of services to scattered or isolated families or will entirely disappear; and fourth, the losses due to dislocation of economic relations in the community. No quantitative measure of these losses is available. It may be assumed, however, that they are probably not less than the amount invested in vacant lots. This amount has been estimated in two communities. A very conservative estimate for the city of Grand Rapids places the amount at \$26,000,000, enough to pay the entire tax bill of the community for over three years, or to pay off all the bonded indebtedness of all governmental units in the area with more than \$5,000,000 left over. It represents over \$150 per inhabitant of the metropolitan area in 1930. And it should be added that Grand Rapids is by no means a "horrible example." The situation there probably represents rather the typical than the worst in the country. In Los Angeles, Riggelman and Eberle estimated in 1924 that 156,557 lots were vacant. The estimated value of these lots, based upon an adjustment of assessed valuations, was \$1,100,000,000. They further estimate the annual cost of carrying these lots at \$100,000,000.¹⁴

It is obvious that any such drain upon the financial resources of a community as is indicated in these communities represents the diversion of a significant amount of capital to a nonproductive purpose. This diversion in turn probably affects the interest rates which productive enterprises must pay. The result may be an interest rate so high as to prove a handicap to industry and production in general.

¹⁴ See Riggelman and Frisbee, *Business Statistics* (New York, 1932), pp. 499, 401.

In one instance a city was obliged to spend over \$19,000,000 in constructing a sanitary sewer to serve outlying subdivisions, sparsely settled, and scattered over a wide area. This was probably at least twice the sum that would have been necessary to serve the same number of people if they had been located more closely together. Similar wastes occur in connection with the provision of miles on miles of water mains, sidewalks, and pavements for isolated units.

In many respects, however, the heaviest loss to the community comes from the disruption of economic relations. The influence of subdivision activities on the general credit situation in a community is both far-reaching and profound. When the market and values upon which credit is based collapse, the repercussion must be severely felt upon the whole economic life of the community. Further, the wide distribution of losses causes them to fall, in probably a majority of cases, upon those who are least able to bear them. It is the laborer and the skilled artisan, the widow, and the white-collared class who suffer most in these fiascos. They are told that land is the safest form of investment, that it cannot be destroyed, stolen, or moved away, and that it always enhances in value. Since the majority of these classes are uninformed of the facts in the situation, they are easily imposed upon. The resulting losses to them and to the community because of the disruption of economic relationships would be difficult to exaggerate. That the whole process plays an important part in the business and economic welfare of the community appears to need no argument.

In view of this fact, it may be desirable to examine some of the proposals for social control that would tend to curb the excesses and secure a better adjustment of subdividing activities to the needs of the community for additional urban sites.

The most direct method of control would consist of public purchase and ownership of the acreage in the penumbra. This method has been successfully used in Stockholm, Berlin, Cologne, Frankfurt on the Main, and other German cities. It gives the municipality or other public body practically absolute control when ownership is extended to enough of the land in the penumbra to give the public authority a virtual monopoly of acreage. When ownership is coupled with the use of such an instrument of tenure as the long-term lease, the control is perpetuated. This method of control, however, is foreign to American custom, political and legal thought. It is difficult to imagine its ever being widely authorized or adopted.

The second method of control suggested consists of enacting legislation which is based upon the assumption that subdividing activities are vested with a public interest and which will require those who propose to subdivide to secure from a public administrative body a certificate of public *convenience and necessity* before proceeding.¹⁶ Much of the

data necessary to enable such a body to administer this sort of law effectively and fairly is available. In city planning commissions and other similar administrative authorities the machinery for administration is provided. The attitude of many of the higher courts expressed in decisions in city planning and zoning cases indicates that these courts might be friendly toward such legislation if conservatively drawn and intelligently and tactfully defended before the courts. But there are many problems of both economics and law that have to be carefully examined before such legislation could be properly drawn. It is doubtful also whether state legislatures would be friendly toward so radical a departure. The present, however, is an exceedingly favorable time to present such a proposal. It remains to be seen whether any such legislation will be prepared.

These two proposals are aimed directly at the heart of the problem; namely, control of the quantity of land subdivided. Some other proposals designed to modify the situation somewhat have been made. Among these are: (1) The proposal that subdividers be required to install the necessary public improvements in all plats subdivided, or to post a bond guaranteeing such installation, before the lots are offered for sale to the public. This proposal is intended to eliminate the irresponsible and fraudulent operator who promises everything and delivers only staked lots. (2) The proposal that before a subdivider be permitted to offer lots for sale, he must prove ownership of the property free and clear, or he must be joined in all contracts for deed by parties who have any prior liens or interests in the property. This proposal has the same intent as the previous one, and, in addition, the intent of preventing contract purchasers from losing their equities by default of the subdivider on underlying obligations.

Something certainly could be accomplished by the collection and dissemination of information regarding the situation as it exists in various communities. Such data as have been collected have demonstrated that discrepancies between the total number of sites subdivided and the needs due to population growth can be discerned early in the boom period. If these data could be interpreted to the public as a whole, they would doubtless serve to temper the enthusiasm of speculative buyers. The difficulty in the use of this method lies in the problem of getting the material before the public and sufficiently interpreting it to enable them to discount the representations of sales agents.

That some form of social control is desirable does not need to be argued. It is fervently to be hoped that the last of the great waves of speculation in suburban lands may have been seen.

* See Coleman Woodbury, "Some Suggested Changes in the Control of Urban Land Development," *Journal of Public Utility Economics*, Vol. V, No. 3 (August, 1929).

REAL ESTATE SPECULATION AND THE DEPRESSION

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A wise prophet observed many years ago that "when the blind lead the blind, both fall into the ditch"—a maxim which accurately describes our situation in both business and government today. In this respect the real estate field is no exception, unless it be in the extent of its misdeeds and the number of people affected by them. It behooves us, therefore, to give some serious thought to the manner in which we have arrived in our present unhappy situation.

This situation, to tell the truth, is not entirely a novel one. The economic history of this country is colorful with recurring speculative epochs and episodes, growing out of varying conditions and with varying effects upon our economic structure and welfare. We have had periods of gigantic speculation in western lands; periods of oil and mining speculation; periods of bank speculation; and of railroad speculation. In the past fifteen years we have had two distinct speculative movements of huge magnitude: the agricultural boom and collapse in the period 1916-21, and the urban boom and collapse in the period 1921-30, interspersed with the Florida episode and other outbreaks of organized crime in various parts of the country.

Our latest speculative movement differs from all previous speculative ones in the United States in the fact that it has been distinctly an urban field of speculation, based primarily upon one specific phenomenon; namely, the growth of urban population and wealth. The rural sections of the country have been in a state of depression throughout most of this period, and the very cities in which active real estate speculation has been carried on have been surrounded by rural populations in acute distress. The agricultural depression in reality contributed substantially to the urban inflation by forcing the movement of millions of people from the farms and small towns to swell the population of the larger cities. Furthermore the low prices of agricultural products increased the margins of real wages and profits in urban industries and resulted in the shift of a larger segment of the national income from rural to urban centers. In short, the agricultural depression had the effect of shifting population, income, and wealth to the cities, in addition to the numerous other factors contributing to the urban growth of this period. Altogether the urban population of the United States increased fourteen and a half million in the decade 1920-30. This spectacular growth of urban population and wealth provided the basis for a period of sensational real estate speculation.

The extent of this urban speculation Professor Fisher has indicated. I may contribute one further illustration. In Cook County, outside of Chicago, we had, in 1928, 151,000 improved lots and 885,000 vacant. On the basis of our Regional Plan Commission's estimates of future population increase, it will take until 1960 to absorb the vacant lots already subdivided in 1928. In fact, on the basis of these computations, we shall still have 25,000 of these vacant lots for sale in the summer of 1960. In one township, Niles Township, we have a population of 9,000, and enough vacant lots for a population of 190,000.

But the facts are sufficiently well known; and throughout the remainder of this paper we will confine our comment to (a) the results of this speculation, (b) the conditions which led to its excesses, and (c) the possible means of preventing its repetition.

What has been the impact of all this upon our business and financial organization?

Its first impact has fallen upon the very heart of our financial organization; namely, the banks and financial institutions. We have no fully developed system of real estate mortgage banking, under legal auspices and supervision, and that is a part of the story; but all the financial resources of existing banking and financial institutions were utilized to the full in financing this speculative movement. The insurance companies bought what were considered the choicer mortgages; conservative banks loaned freely on real estate mortgages; and less conservative banks and financial houses loaned on almost everything else that represented real estate in any form.

A particularly ominous development was the expansion of the banking system itself for the specific purpose of financing real estate promotion and development. Real estate interests dominated the policies of many banks, and thousands of new banks were organized and chartered for the specific purpose of providing the credit facilities for proposed real estate promotions. The greater proportion of these were state banks and trust companies, many of them located in the outlying sections of the larger cities or in suburban regions not fully occupied by older and more established banking institutions. In the extent to which their deposits and resources were devoted to the exploitation of real estate promotions being carried on by controlling or associated interests, these banks commonly stopped short of nothing but the criminal law—and sometimes not short of that.

In addition to this dangerous alliance of banking and real estate promotion, a third and more ulterior element was often included in the combination, that of local government officials and political groups. The purpose of this combination was sometimes to facilitate securing a charter, sometimes to secure the deposit of public funds, at other

mes to insure favorable treatment in tax matters and to exploit the projection of streets and highways and other public improvements. A fourth element frequently found in these banking institutions was represented by the contractors' and construction groups, whose interests are obvious; and a fifth element was frequently made up of local public utility interests, who were able to combine the extension of surface and rapid transit lines with large real estate promotions.

Now, when it is recalled that these were not mortgage banks, organized on principles of long-term financing, investing their own capital funds, and free from deposit liabilities, but that they ordinarily purported to be commercial banks, engaged in accumulating and carrying large deposits, and that their operations were financed largely through the funds of their depositors, it will be realized in what a highly overextended position this segment of our banking system was placed.

Eventually we reached a point where most of the city and outlying banks of the country were loaded with real estate loans or real estate liabilities of some sort. Not all of these loans were speculative; many of them were intrinsically sound and conservative. But a large, probably major, portion of this loan structure depended for its solvency upon continuation of the rate of absorption and turnover which had characterized the real estate market, and on a continued advance of real estate values. When the rate of absorption halted and the price movement stopped, one of the largest categories of bank collateral in the country went stale, and the banks found themselves loaded with frozen assets, which we have been trying ever since to thaw out.

It will be conceded that our knowledge of the amount, proportions, and character of real estate liabilities carried by all the banks of the country in 1929 is far from exact. We do not have all the facts and figures, and in the nature of things probably will never have them. But it would seem that we can safely say this much: that real estate, real estate securities, and real estate affiliations in some form have been the largest single factor in the failure of the 4,800 banks that have closed their doors during the past three years and in the "frozen" condition of a large proportion of the banks whose doors are still open; and that as the facts of our banking history of the past three years come to light more and more, it becomes increasingly apparent that our banking collapse during the present depression has been largely a real estate collapse.

Throughout this period there was another form of real estate speculation, not commonly classified as such, but one that has had disastrous consequences. This was the real estate "speculation" carried on by municipal governments, in the sense of basing approximately 80 per cent of their revenues upon real estate and then proceeding to erect a struc-

ture of public expenditure and public debt whose security depended largely on a continuance of the rate of profits and appreciation that had characterized the period from 1922-29.

During this period of prosperity real estate taxes were paid with little complaint. As a matter of fact, they were paid to a large extent neither out of capital nor earnings, but out of increment. Under these conditions, public expenditures expanded and taxes were increased without protest; and public officials exploited the real estate groups as systematically and thoroughly as the real estate groups had exploited the rest of the public. The result was a structure of public expenditure which it has been difficult to curtail, and a volume of indebtedness whose solvency is now seriously jeopardized on a large scale.

The most conspicuous example of wholesale governmental speculation in real estate was that of Florida; but striking examples of the same thing are afforded by the financial difficulties of Chicago and other cities. In Chicago, it is true, there were some special circumstances; there are always special circumstances in the neighborhood of a shaky structure. But the essential elements in our financial difficulties in Chicago are an extreme concentration of tax burdens on real estate and a volume of expenditure and indebtedness which assumed a continuation of real estate profits and appreciation. Hundreds of other cities and local governments in the United States are now in default or on the verge of insolvency for substantially the same reasons. The impairment or collapse of their finances and credit has seriously impaired the credit situation in their various communities.

The final impact of deflation and loss in any field of industry falls upon the purchasing power of the individuals and groups directly and indirectly dependent upon this industry; and so the final impact of the successive inflation and deflation of real estate has fallen upon the individual owners of real estate. In this case, it has somewhat special significance on account of the wide distribution of real estate ownership. Indeed, one of the results of the speculative activity itself was to broaden the distribution of real estate ownership in this country. The wide distribution of losses meant a violent contraction of established purchasing habits, with disastrous results in retail and wholesale commercial channels.

In consequence of these various impacts of the real estate inflation and deflation we find ourselves in a depression, in which, while real estate is only one among many factors, it is nevertheless a major factor, and one whose ramifications and influence in the situation assume large proportions, as the underlying facts of the depression come more and more to light. And the writer hazards the conjecture that when the history of the past decade is finally written in economic terms, it will be

apparent that our spectacular urban expansion, with the reckless speculation based upon it, has been one of the dominant aspects of the whole somewhat bizarre period.

And while speaking of the character of this speculation it will not be amiss to offer some comment upon the factors which contributed to its excesses and its ulterior aspects.

One of these is the fact that much of the real estate business of the past few years has been more a merchandising business than a field of speculation; and it is a mistake to confuse the two things. It is the writer's conviction that the unfortunate conditions in the real estate field today are due quite as much to vicious merchandising methods as to unwise speculation.

Real estate merchandising performs certain highly useful services, analogous to the functions of the middleman in other fields. But there are certain fields of merchandising which, on account of the nature of the commodity handled, the character of those engaged in it, or other circumstances, have developed particularly vicious methods of merchandising. One of these, for example, is the field of patent medicines and medical quackery; and another is real estate. In both fields the explanation lies, in part, in the nature of the commodity. No one knows but that a certain combination of roots and rattlesnake oil may happen to contain the particular ingredient that will relieve his pain; and no one knows but that a particular lot out in the sticks may happen to be the center of a future suburb.

In both fields, the explanation lies in part also in the nature of the clientele appealed to. The medical fakir appeals to the large body of suffering humanity in need of relief; the real estate fakir appeals with shrewd salesman's instinct to those large classes who cannot anticipate financial security unless through the medium of some fortunate investment of the small surplus they can command. This is illustrated by the wholesale victimizing of teachers, preachers, salaried people, women, and people of small means in general.

And in both fields the explanation lies, further, in the character of those who engage in them. I have known medical quacks, and at the present time I have the honor of including some real estate quacks among my personal acquaintances. Of the two, the real estate fakir is the more unscrupulous type, quite frequently the racketeering, crooked-politician type. If anyone is inclined to think this overdrawn, concrete evidence of it is afforded by the notorious extent to which successful racketeers have gone into real estate, as a field of respectable business into which they can graduate with the least readjustment of previous business habits.

The truth is that much of the real estate activity of the past few

years has been as devoid of speculation as anything could be, so far as the promoters and operators were concerned. The operator who drove his stakes in the swamp and moved his electric light posts from one temporary subdivision to another had no intention of speculating—at least not in his own properties. He was merely a peddler, relying on highly developed merchandising methods to dispose of his wares quickly and move on to the next countryside. Many real estate and building promotions did not represent even devices for selling real estate primarily, but for merchandising various types of securities, for selling materials and equipment, for marketing contractors' supplies and services, and for still more remote emoluments.

To call this "speculation" and ascribe its unhappy results merely to "excessive speculation" is applying a conventional terminology to a situation which it no longer describes. When a real estate concern, a reputable bank, and the city officials of a local municipality all conspire together to have a large order of sewer pipe (intended for the regular city streets) hauled out and spilled along the streets of a new subdivision, left there over the week-end to give an appearance of immediate activity, and then gathered up by the city trucks and hauled back to its original destination—that is not real estate speculation. And when the bank subsequently finds itself loaded with "frozen assets," to ascribe its difficulties merely to "excessive speculation" is a misplaced euphemism. The writer has thus far felt obliged to use the conventional terminology, but takes this occasion to point out that much that was called speculation in the period we are discussing was actually something very remote from speculation.

In the second place, the real estate business has for years been conducted in more complete detachment from any relation to the facts that underlie it than any major line of business or industry of which the writer has knowledge. Much of it has had no discoverable relation to facts. Yet facts of the type to which Professor Fisher has referred and scores of other equally pertinent and concrete facts could have been known at the time that policies were being determined, if real estate operators had cared for facts or cared to base their policies on them. Their refusal to ascertain or to face the facts was one of the factors that made collapse inevitable.

The more important question now is whether anything can be done to prevent a recurrence of this whole episode in our next period of prosperity; or shall we, like the popular character in the play, merely make the most of the depression while it lasts, resigned to the prospect of an inevitable return of prosperity, when we shall have the whole thing to go through again?

In the first place, it may be observed that there is nothing in all this

unfortunate development to indicate that there is not still a field for the useful functions of speculation in land and real estate, as in other fields of legitimate speculation. Speculation widens the market, increases the salability and fluidity of real estate, broadens the distribution of property, and frequently provides somewhat specialized resources for carrying the peculiar risks of land ownership and utilization. Especially in a country like the United States with its vast area and resources, its broad movements of population and industry, and its rapidly changing industrial structure, there is need for all the speculative capacity that can be developed for discerning these movements beforehand and providing facilities for their orderly development. And in many periods in our past history courageous and intelligent speculation in land and real estate has played a strategic part in shaping our economic progress.

It is not necessary to go to extremes; we need not feel obliged to justify every form of speculation in land or hunt for far-fetched grounds on which to justify legitimate speculation. We need not agree, for instance, with a writer in the *Atlantic Monthly* a decade ago that had it not been for unrestricted land speculation in the West, the buffalo would still be roaming the Mississippi Valley and chewing their cuds in the outskirts of Chicago. There are subdivisions on the outskirts of Chicago today, which, if they could be utilized for a good "buffalo wallow," would be contributing a higher service than any they are now rendering. And we need not take alarm, with another distinguished American economist, lest the adoption of a tax on site value might make it necessary to repeal the tax on oleomargarine, "imposed primarily to insure the purity of butter." Speaking from the rural background of our own early years, we are too keenly aware that the purity of butter depends on many other things than either taxes or speculation. But while avoiding all such extremes, it is still true that there is an important field for intelligent real estate speculation; and our problem is, if possible, to preserve this field while avoiding the disastrous results of our recent episode. To this end we shall enumerate four general lines of possible action, all of which grow directly out of the facts and conditions already described.

In the field of subdivision development, particularly on the periphery of our larger cities, we have reached an intolerable situation. Subdivision, as it has been practiced in the past, has destroyed thousands of acres of valuable agricultural land and has surrounded our larger cities with a "no-man's land" of devastation and desolation. I am unable to discover any element in the real estate business, as now organized and practiced, that promises to prevent a repetition of past experience as soon as normal times return. I am coming to the conviction reluctantly that we are going to be compelled to subject this field of activity to positive public regulation in the form of requiring a certificate of public nece-

sity and convenience before a new subdivision can be developed, with requirements insuring specified standards of lay-out, transportation facilities, public utility services, and the financial responsibility of the company undertaking the development. The one consideration that would still make me hesitate is the character of our municipal governments, upon whom in most cases this regulative authority would have to be conferred. If our city governments in the next decade, as they have been in the past, are going to be turned over to our "Big Bills" and "Dapper Jimmies" and their numerous associates it is worse than futile to talk of conferring any additional powers upon them. In that case, we are between the Devil and the sea and it is useless to try to choose between them. But if we should be able, by the grace of God, to pull our municipal governments out of the slough of incompetence and corruption into which many of them have fallen, one of their worthwhile functions may well be the supervision of their own planning and development.

The collapse of our banking system under the weight of real estate financing was due in part to the inflated character of real estate securities; but it was due in part also to the character of the banking system. We were trying to finance a real estate movement through the agency of a commercial banking system. The results have demonstrated anew the need for a fully developed system of mortgage banking, subject to the same type of control and supervision as our national bank system. Feeble and somewhat muddled steps have been taken in that direction in the form of the Federal Land Banks, Joint Stock Land Banks, and our Home Loan Banks; but certainly our experience in the field of real estate financing for the past decade demonstrates the urgent need for a fully developed system of mortgage banking under government control and supervision.

The financial difficulties of local governments in consequence of both the inflation and deflation of real estate values demonstrates strikingly the un wisdom of a revenue system concentrated so heavily upon real estate, or upon any other one commodity. A tax system that rested on a broader base, that drew its revenues from a greater number of categories of tax-paying ability, would have weathered the period of adversity with less wreckage to itself and less demoralizing effects on private credit and investment.

In the fourth place, something can be accomplished by the concentration of more scientific study upon the field of urban economics. When speculation dealt with western lands, oil and mining exploitation, railroad promotion, and similar fields, there may have been little field for scientific study. Fortunately the urban field of real estate speculation is one in which there are wide areas capable of scientific exploration.

Such problems as population trends, influence of the agricultural situation, geographical movements of industry, population densities, absorption rates, housing and residential trends, building height and traffic problems, obsolescence, taxes and special assessments, and influence of public improvements on land values are all capable of scientific exploration. And while in none of these fields will the facts alone afford an answer, a real estate business based on recognition of these facts will be a very different thing from most of the real estate business of the past decade.

Now, none of these things, nor all of them put together, will prevent speculative excesses from time to time. But if during the past decade we had had even a half-way intelligent public regulation of subdivision development, if we had had a fully developed system of mortgage banks under legal supervision, if we had had a tax system that rested to a substantial extent upon other categories of ability than real estate exclusively, and if we had had more intensive research and a wider dissemination of the facts affecting urban growth, it is safe to say that one of the major factors in the present depression would have been considerably minimized.

**MINUTES OF THE BUSINESS MEETINGS OF THE AMERICAN
ECONOMIC ASSOCIATION, HELD IN CINCINNATI, OHIO,
DECEMBER 28-30, 1982**

The first business meeting of the American Economic Association was held at 9:00 A.M., December 29, 1982, in the Netherland Plaza Hotel, Cincinnati, Ohio, with President Barnett presiding.

The minutes of the meeting of December 30, 1981, were approved as printed in the *Proceedings of the Forty-fourth Annual Meeting*, pp. 277-279.

The following reports were read and approved:

- (1) The Secretary, Mr. Deibler. (See p. 176.)
- (2) The Treasurer, Mr. Deibler. (See p. 181.)
- (3) The Auditor, Mr. Deibler for Mr. Eric Kohler, of E. L. Kohler and Company. (See p. 182.)
- (4) The Managing Editor, Mr. Dewey. (See p. 187.)
- (5) The Finance Committee, Mr. Deibler for Mr. C. H. Crennan. (See p. 189.)
- (6) The Representatives to the Social Science Research Council, Mr. Millis. (See p. 190.)

Professor Joseph H. Willits reported for the Committee on Permanent Headquarters as follows:

WHEREAS, The establishment of permanent headquarters jointly with other social science groups, such as the American Sociological Society, the American Statistical Association, and the American Political Science Association, would offer desirable opportunities for formal co-operation on matters of common interest and with the Social Science Research Council; and would open the way to important administrative advantages, and

WHEREAS, The establishment of such a headquarters whether done jointly with other societies or alone, would make it possible for the Association to render better service to its members in a number of ways—such as by stimulating research, by assisting in the preparation of programs, and by rendering other services of a professional character—and

WHEREAS, The establishment of a permanent headquarters might facilitate a consolidation of the duties of the Editor of the *Review* and of the Secretary of the Association; therefore, be it

Resolved, That the Association reaffirm its decision to establish a permanent headquarters, and that the Association take steps to develop the details of such a plan, and that the Executive Committee be authorized to proceed with such a project when adequate funds are available, and the problems of personnel can be suitably arranged.

Voted: That the report of the Committee be approved.

President Barnett appointed Professors H. E. Hoagland of Ohio State University, Vanderveer Custis of Northwestern University, and Dr. Meredith Givens of the Social Science Research Council, as a Committee on Resolutions.

Adjourned.

The second business meeting of the American Economic Association was held at 9:00 A.M., December 30, 1982, in the Netherland Plaza Hotel, with President Barnett presiding.

The minutes of the meeting of December 29, 1982, were read and approved.

essor J. F. Ebersole made a report for the Joint Committee on the Staff Income. After setting forth the organization and activities of the Committee (see p. 191), the report presents the following general recommendations:

That the Association approve in principle the specific recommendations listed

and that the Association authorize the appointment of a delegation to a new committee, having power to: (a) fill in technical details of present recommendations; (b) establish and maintain contact, presumably through an agent, with officers, with a view to securing their co-operation in obtaining adoption of proposed changes; (c) continue the investigations of the present Joint Committee and order to work out further recommendations as needed.

That the Association authorize the Joint Committee to select such an agent as provided in 2(b) above, and provide a moderate appropriation for salary and expenses of such an agent, or empower the Joint Committee to seek such appropriation on the Association's behalf from other sources.

The report was debated and the following action was taken.

Resolved: That (1) the report and recommendations of the Joint Committee be accepted; (2) the present representatives of this Association on the Joint Committee be continued; (3) the Executive Committee of this Association be authorized to appropriate funds, in their discretion, for the continuance of the work of the committee members from this Association until and unless the Association should be able to obtain funds elsewhere; and (4) the Joint Committee be asked to make a special canvass of the technical accounting aspects involved in a change of the form of return and of the suggestions that may be made by the federal bureaus interested in executing the final plan or program. The following report from the *Encyclopaedia of the Social Sciences* was read by Professor E. R. A. Seligman:

By the year 1932 Volumes VII and VIII of the *Encyclopaedia* have appeared, and Volume IX will have appeared before this report is presented. Volume X is almost in the printer's hands and Volumes XI and XII are in a forward state of preparation. We expect Volumes XIII, XIV, and XV to appear without fail in 1934. The enterprise has cost far more than was anticipated at the outset, and negotiation is now in progress with the Rockefeller and Carnegie Foundations, the outcome of which is confidently expected, and which will render possible, although at severe sacrifice on our part, the completion of the enterprise.

Resolved: That the report be approved.

Professor Morris Copeland of the University of Michigan submitted the following resolution:

Resolved, The nominations of officers of the American Economic Association have not been made by the nominating committee, which committee has followed the practice of making only one nomination for each position to be filled; and

Resolved, The election of officers has heretofore been held at one of the sessions of the annual business meeting of the Association, which sessions are commonly attended by a small proportion of those in attendance at the non-business sessions of the hour and the number of conflicting engagements, and the electoral process at which sessions is commonly in the nature of a confirmation of the suggestions of the committee's selections; and

Resolved, Although these procedures have led to many excellent selections in the past, now because of the size and the scattered membership of the Association there is no adequate and convenient democratic channels for ascertaining the wishes of the vast majority of the Association's members; and

Resolved, These procedures fail to stimulate active interest in the affairs of the Association on the part of its membership; and

WHEREAS, Numerous other organizations now employ electoral procedures which are more convenient and democratic and more adequate to the ends of ascertaining the preferences of the majorities of their electorates and of stimulating organization interest, witness:—the electoral procedure of the Teachers Insurance and Annuity Association of America, the procedures of numerous colleges and universities in the election of alumni trustees, the electoral procedures of the American Psychological Association, the American Mathematical Association, the American Mathematical Society, etc.; therefore, be it

Resolved, That we the undersigned members of the Association respectfully petition you to consider earnestly the advisability of the following:

(1) That the Secretary and Treasurer, and the Managing Editor of the *American Economic Review*, as well as the Counsel, shall be appointed by the Executive Committee.

(2) That for each elective office to be filled the nominating committee shall be instructed to present more than two nominations.

(3) That the election of elective officers shall be conducted either by (a) a ballot to be taken by mail, the ballots and nominations being sent out in the fall with the announcements of the annual December meetings, or by (b) a ballot to be taken both by mail and at a polling place set up at the Association headquarters at the annual meetings.

(4) That in the election of the elective officers a preferential ballot shall be employed.

(5) That, pending the amendment of the by-laws which provide that "the officers of the Association, with the exception of Counsel, shall hereafter be elected at the annual meeting," the balloting for elective officers as specified in (3) and (4) above and the appointments of the newly appointive officers as specified in (1) above shall be regarded technically as a nominating procedure; and that pending the amendment of the by-laws the first choice for each elective position to be filled as ascertained by such balloting and the choices of the Executive Committee for the newly appointive officers shall be presented to one of the sessions of the annual business meeting for confirmation as heretofore.

(6) That the by-laws of the Association shall be amended so as to make possible the taking of the final ballot for elective officers either entirely or partly by mail, and shall be further amended so as to permit the selection by appointment of the officers enumerated as appointive in (1) above.

(7) That the above six proposals shall be submitted to one of the sessions of the annual business meetings at Cincinnati for discussion, and that subsequently and early in 1933 these proposals as amended by action taken on them at the annual business meeting shall be submitted to a vote by mail of the entire membership of the Association.

[Here were attached the signatures of 127 members, the original copies of which are on file in the Secretary's office.—EDITOR.]

Professor Copeland presented the following motion:

That the President in consultation with the Executive Committee appoint a committee on electoral procedure, consisting of three members.

That this committee be instructed as follows:

(1) To put the plan outlined in the petition in form for submission in a referendum to the Association.

(2) If it shall see fit, to prepare an alternative plan or plans of procedure for the selection of officers for submission in referendum.

(3) To prepare such exhibit as may be useful to intelligent voting on the referendum.

(4) To report early in 1933 to the Executive Committee and that the Executive Committee on receipt of such report, shall arrange to conduct a referendum by mail.

After extended debate during which two substitute motions failed by votes of 19 to 17 and 20 to 18, the original motion was carried by a vote of 28 to 14.

Professor H. E. Hoagland presented the following report for the Committee on Resolutions:

WHEREAS, The success of a series of conventions with an elaborate program of meetings, such as we have enjoyed during the past few days, depends upon first, an enormous amount of preliminary preparation and labor, and second, adequate and efficient hotel accommodations; and

WHEREAS, The visiting delegates to the Cincinnati conventions of December twenty-eighth to December thirty-first, 1932, desire to make public acknowledgement of their indebtedness to those who are primarily responsible for the high standards of excellence attained by these conventions; therefore, be it

Resolved, That the Secretary tender to Dr. Francis H. Bird, of the University of Cincinnati, chairman of the Committee on Local Arrangements, and to his able associates the warm appreciation and sincere thanks of the officers and members of the America Economic Association for their indefatigable labors in preparing for our convention; and be it further

Resolved, That, in like manner, an expression of the gratitude of the Association be conveyed to our President, to the members of the Program Committee, and of the Publicity Committee, for their contributions to the success of this year's program; and be it further

Resolved, That we extend to Mr. Warner Sayres, chairman of the Cincinnati Convention Bureau, our thanks for his efforts to make our visit to his city pleasant and comfortable; and be it further

Resolved, That our thanks be extended also to the management of the Netherland Plaza for its friendly co-operation in arranging for the necessary physical facilities for our meetings, and to the local press for the generous publicity accorded our discussions.

The resolutions were adopted and the Secretary was instructed to send copies in accordance with the instructions contained therein.

Voted: That the determination of the next place of meeting be referred to the Executive Committee with power.

Professor E. W. Kemmerer reported for the Nominating Committee the following list of nominations:

For President: W. Z. Ripley, Harvard University.

For Vice-Presidents: H. L. Moore, Columbia University; W. W. Stewart, New York City.

For Secretary-Treasurer: F. S. Deibler, Northwestern University.

For Members of the Executive Committee: D. A. McCabe, Princeton University; Stuart Daggett, University of California.

For Members of the Editorial Board: A. B. Wolfe, Ohio State University; C. Goodrich, Columbia University.

For Member of the Program Committee: S. H. Slichter, Harvard University.

For Representative to the Social Science Research Council: H. A. Millis, University of Chicago.

There being no additional nominations, the Secretary was instructed to cast a ballot, and the nominees were declared duly elected.

Adjourned.

**REPORT OF THE SECRETARY OF THE AMERICAN
ECONOMIC ASSOCIATION FOR THE YEAR
ENDING DECEMBER 15, 1932**

In order to record all of the activities of the Association for the year just closed, I am including the minutes of all meetings of the Executive Committee held within the year.

(1) Minutes of the first meeting of the 1932 Executive Committee:

The first meeting of the Executive Committee of the American Economic Association for the year 1932 was held in the Cosmos Club, Washington, D.C., March 13, 1932, at 10:00 A.M. There were present: President Barnett, presiding, and Messrs. Bogart, Deibler, Dewey, Gay, Hammond, Heilman, Ise, Mitchell, Tucker, and Wolman.

Voted: To appoint Dr. Edmund E. Day a member of the Joint Census Advisory Committee for the term 1932 to 1934.

Voted: To appoint the President, the Secretary, and one representative to the Social Science Research Council as a committee for the purpose of investigating in co-operation with the Social Science Research Council, the possibilities of stimulating and aiding research in the field of economics, and the reporting to the next annual meeting of a plan for the accomplishment of this purpose.

Professor Max Handman was named as a member and chairman of the committee.

Mr. R. A. Sawyer, chairman of the Public Documents Committee of the American Library Association, requested the opinion of the American Economic Association on the question of the change from free distribution of public documents to distribution by sale only.

Voted: That with the information before it, the Executive Committee is not prepared to take action recommending the restriction of the present depository system and method of distributing public documents.

Voted: To appoint J. F. Ebersole, Ralph C. Epstein, and Murray Haig members of a joint committee with members of the American Statistical Association and the American Association of University Instructors in Accounting, for the purpose of urging the United States Treasury Department to publish additional statistical data on incomes.

Voted: To appropriate not to exceed \$150 to defray the expenses of this committee.

The information was brought to the attention of the Executive Committee that some of the other associations were contemplating the establishment of permanent headquarters.

Voted: That the President appoint a committee to consider the possibility of common action with other associations in the establishment of permanent headquarters.

Voted: That the present Committee on the World's Fair meeting be continued, and be given full authority in the development of a program for this meeting.

Professor Emerson P. Schmidt, of the University of Minnesota, requested the privilege of reprinting the addresses of the presidents of the Association in a volume to contain a brief history of the Association by Dr. Ely and the pictures and a brief biographical note concerning each of the presidents.

Voted: That it is the opinion of the Executive Committee that the proposed volume would be more appropriate as an official publication of the Association, and therefore the Committee hesitates to give its sanction for the reprinting of these addresses.

Voted: That, because of his long, continuous membership, Professor J. William Black (Union College, Schenectady, New York) be granted a complimentary membership.

Voted: That the *Social Science Abstracts* be granted not to exceed a half page of advertising in each issue of the *Review*.

Professor H. G. Shields, president of the National Education Association, requested the appointment of a joint committee to consider the advisability of increasing the amount of instruction in economics in the secondary schools.

Voted: That the Executive Committee express to Professor Shields its sympathy with his proposal, but owing to the difficulty of the problem it was thought wise that a more definite proposal should be presented before action is taken.

Voted: That the dates of the next annual meeting be December 28, 29, and 30.

Voted: That the President and the Secretary be authorized to appoint a committee on local arrangements.

After an informal discussion of the program for the next annual meeting, the committee adjourned.

(2) Minutes of the second meeting of the 1982 Executive Committee:

The second meeting of the Executive Committee of the American Economic Association for the year 1982 was held in the Netherland Plaza Hotel, Cincinnati, Ohio, December 28, 1982, at 5:00 P.M. There were present: President Barnett, presiding, and Messrs. Anderson, Bogart, Deibler, Dewey, Hammond, Ise, Mitchell, and Willits.

Voted: That the American Economic Association reaffirm its original approval of the work of Congress in providing for the preparation of an Index and Digest of State Legislation and express its continued faith in the usefulness of this work.

Voted: That the President, Vice-Presidents, and other proper officers be authorized to file such papers as are required by the State Bank and Trust Company, of Evanston, Illinois, the bank of deposit for the funds of the Association, and to provide for the proper drawing of checks against the funds of the Association.

Voted: That the appropriation of \$150 for the expenses of the Committee on Permanent Headquarters, that was authorized by the Executive Committee by a vote of 10 to 0, be approved.

Voted: That the problems arising from the unsettled condition of foreign exchange as they affect dues and subscriptions be left for the determination of the Secretary.

Professor Copeland presented a resolution requesting a change in the election procedure. After informal discussion it was agreed that Professor Copeland should present the resolution to the business meeting of the Association on December 30, 1982.

Professor J. F. Ebersole made an extended statement on the work of the Joint Committee on Statistics of Income. After a discussion of the report, the Executive Committee expressed the opinion that further consideration should be given to the accounting features of the proposals as well as to ways and means of securing the co-operation of the officers of the United States Treasury Department, and that the Committee should be continued for this purpose. The Executive Committee requested Professor Ebersole to prepare an appropriate report and resolution embodying the results of the work of the Joint Committee, including the suggestions made by the Executive Committee, to be presented to the business meeting of the Association on December 30, 1982.

Adjourned.

(3) Minutes of the third meeting of the 1982 Executive Committee:

The third meeting of the Executive Committee of the American Economic Association was held in the Netherland Plaza Hotel, Cincinnati, Ohio, December 29, 1982, at 5:00 P.M. There were present: President Barnett, presiding, and Messrs. Anderson, Bogart, Deibler, Dewey, Hammond, Ise, and Mitchell.

Voted: That the report and recommendations of the Committee on Research be approved. (See p. 195)

Voted: That the handbook be printed as a supplement to the June issue of the *Review*.

Voted: That Mr. John E. Walker be reappointed as counsel of the Association for the year 1983.

Voted: That Messrs. C. H. Crennan, George B. Roberts, and F. S. Deibler be reappointed as the Finance Committee.

Voted: That Leo Wolman be reappointed as a representative on the Joint Census Advisory Board.

Dr. H. G. Moulton submitted the following report for the special committee on program for a special meeting to be held in June, 1983, in connection with the Century of Progress in Chicago:

I submit herewith a report for the Committee appointed to consider holding a special meeting of the American Economic Association, in conjunction with other associations, in connection with the World's Fair. The Committee was in favor of the plan, provided it could have the support of the Social Science Research Council. The Council gave the matter consideration at its meeting in September and reports as follows:

"The Council has taken definite action abandoning the World Congress of Social Scientists at the Fair which has been under consideration for some time. It was felt that there are so many uncertainties in the situation at the Fair that we are still in no position to do anything about a Congress; that even though those uncertainties had been cleared up, the time is very short in which to prepare effectively."

In the light of this action on the part of the Council, I would recommend that the project be given up.

The Secretary reported his conversations with Professor Irving Fisher who had just come from a session of Section K of the American Association for the Advancement of Science. It was reported that Professor Fisher was strongly in favor of the proposal that the American Economic Association hold a session in connection with the Fair. After due deliberation, the following vote prevailed.

Voted: That the report of the Committee be approved.

Voted: That the Secretary be requested to communicate with Professor J. Russell Smith and explain the policy of the American Economic Association in connection with proposals such as those contained in his letter of December 19, 1932.

Professor Stuart Rice submitted the following resolution, with the statement that a similar resolution was being submitted to the American Statistical Association, the American Sociological Society, and the American Political Science Association:

WHEREAS, Unusual population movements have occurred since the Census of 1930 between city and country and within cities; therefore, be it

Resolved, By the American Economic Association assembled in its annual meeting at Cincinnati, Ohio, December 28-30, 1932, that in its opinion a population census of the United States should be taken, intermediate between the decennial enumerations of 1930 and 1940; that this population census should be synchronized with the next quinquennial census of agriculture; and that this resolution should be brought by the Association to the attention of the President of the United States, the Secretary of Commerce, the Director of the Census, and members of the Congress of the United States; and that the officers of the Association be instructed, in co-operation with other interested organizations, to take all steps available to them to promote the objects herein set forth.

Voted: That in view of the present financial conditions of the country and the pressure on Congress to economize, it was thought inadvisable to make requests for additional appropriations at this time.

Dr. Meredith Givens presented the following resolution:

WHEREAS, The social scientists are directly interested in the scientific work of the several departments of government; therefore, be it

Resolved, That this Association authorize the appointment of two representatives on an interassociation committee of the social sciences to explore this whole subject with a view to making social scientists more effective in this area, and

Resolved, That the American Economic Association join with the American Political Science Association, the American Statistical Association, and the American Sociological Society in appointing representatives to such a committee, and

Resolved, That the committee thus formed shall be authorized to take action in any specific cases which may call for immediate attention.

Voted: That the representatives of the American Economic Association on the Joint Census Advisory Committee be authorized to represent this Association, and that they be instructed to exercise their judgment in co-operating with representatives of the other associations in endorsing personnel for scientific appointments in government service.

Adjourned.

Minutes of a special meeting of the 1932 Executive Committee:

A special meeting of the Executive Committee of the American Economic Association was held in the Netherland Plaza Hotel, Cincinnati, Ohio, December 30, 1932, at 12:00 M. There were present: President Barnett, presiding, and Messrs. Anderson, Bgart, Deibler, and Dewey.

It was reported to the Executive Committee that the newly-elect President and the two Vice-Presidents were out of the country. The Secretary was instructed to verify this report. The attention of the Secretary was then called to the constitutional provision (Article IV, Section 1 of the By-laws) which under the reported circumstances, if verified, would require him to assume the duties of the President.

Adjourned.

The office of the Secretary has carried on the regular business of the Association during the current year.

The *Proceedings* of the annual meeting of 1981 were edited and published as a supplement to the March, 1982, issue of the *Review*.

President Barnett made the following appointments during the year:

NOMINATING COMMITTEE:

E. W. KEMMERER, *Chairman*
J. M. CLARK
M. A. COPELAND
I. LIPPINCOTT
M. H. ROBINSON
H. R. TOSDAL

AUDITORS:

E. L. KOHLER AND COMPANY

COMMITTEE ON LOCAL ARRANGEMENTS:

F. H. BIRD, *Chairman*

JOINT COMMITTEE ON STATISTICS OF INCOME:

RALPH C. EPSTEIN
MURRAY HAIG
J. F. EERSOLE

REPRESENTATIVE OF THE ASSOCIATION AT GETTYSBURG COLLEGE CENTENARY:

R. S. SARTY

APRIL MEETING OF ACADEMY OF SOCIAL AND POLITICAL SCIENCE:

L. L. LORWIN
R. G. TUGWELL
S. H. SLICHTER

DELEGATE TO AMERICAN HOME ECONOMICS ASSOCIATION:

EDGAR H. JOHNSON

REPRESENTATIVE AT THE OPENING OF THE LIBRARY OF THE UNIVERSITY OF DENVER:

JOHN D. CLARK

REPRESENTATIVE AT CONFERENCE OF UNIVERSITIES AT NEW YORK UNIVERSITY:

E. R. A. SELIGMAN

In accordance with a resolution of the Executive Committee (Vol. XX, Sup. 1, p. 184), the President and Secretary have approved the use of the addressograph list of the Association by:

Frank D. Graham, for notification of his book on *The Abolition of Unemployment*.
New York Central Railroad Company, for circularizing members about train service to annual meeting.

The Association has continued its co-operation with the Pollak Foundation, the Adelphi Company, and the Royal Economic Society, by which members of the Association may secure publications of these companies or associations at reduced rates. This service to the membership has been effected without cost to the Association.

The following table shows the present status of the membership and the changes that have occurred during the year ending December 15, 1982, the date of closing the books of the Association:

Total members and subscribers in December, 1981	3781
Annual members in December, 1981	2626
Members removed in 1982:	
Resigned	104
Lack of address	28
Non-payment of dues	185
Died	16
	2298

Members added in 1931	195
Total annual members in December, 1932	2488
Life members in December, 1931	64
Removed in 1932	2
Total life members in December, 1932	62
Honorary members in December, 1931	15
Removed in 1932	1
Added in 1932	14
Total honorary members in December, 1932	5
Total honorary members in December, 1932	19
Total members in December, 1932	2569
Subscribers in December, 1931	1076
Removed in 1932	189
Added in 1932	887
Total subscribers in December, 1932	171
Total subscribers in December, 1932	1088
Total members and subscribers, December, 1932	3657
Net loss	154

The net loss for the year was 154. The prolonged depression is responsible for this decline, as the correspondence has shown that many members and libraries as well have had to suspend their affiliation with the Association on account of a lack of funds.

The number of resignations of members and removals for non-payment of dues, together with discontinuances of subscribers, were larger than last year and account for nearly half of this loss. In addition the number of new members and subscribers was less than received last year. The Secretary takes this opportunity to express his appreciation for the co-operation received from members in nominating persons for membership, and earnestly appeals for added help in maintaining the membership during the coming year.

We regretfully report that during the year the deaths of the following members have been reported, and that we have had to remove their names from the active membership list:

AVARD L. BISHOP
 ROLAND W. BOYDEN
 HARRY J. BRANDT
 ROBERT W. DE FOREST
 GEORGE EASTMAN
 EUGENE L. FISK
 HUGH MCKAY FLETCHER
 FRANKLIN H. GIDDINGS
 CHARLES GIDE (Honorary Member)
 JAMES F. GLEN

FRANCIS A. HARDY
 P. HUGHES
 GEORGE P. MILLER
 WILLIAM GARDNER REED
 JULIUS ROSENWALD
 MORTIMER L. SCHIFF (Life Member)
 FRED MANVILLE TAYLOR
 W. W. UNDERWOOD
 H. WALTERS (Life Member)

Respectfully submitted,

F. S. DEIBLER, *Secretary*

**REPORT OF THE TREASURER OF THE AMERICAN
ECONOMIC ASSOCIATION FOR THE YEAR
ENDING DECEMBER 15, 1932**

The members of the Association are referred to the report of the Auditor a statement of the financial condition of the Association at the date of the audit. The current assets and liabilities are shown in Exhibit I. The income and expenditures for the year appear in Exhibit II. The total assets of the Association now amount to \$47,498.00. This figure carries the investments at cost, which is \$7,894.78 above their present market value, which represents a decline of \$1,067.74 during the year. It does not include the stock of unsold copies of the past publications of the Association, which have been charged as an expenditure against past income. The Association receives a considerable income yearly from this source. During the last five years this income has amounted to \$3,754.58, or an average of \$750.00 per year.

The total receipts, including dues, interest, advertising, sales, and miscellaneous items amounted to \$21,288.84, or \$1,078.27 less than for the year 1931. The net income from dues was lower by \$782.09, and publication income by \$875.08 than for the previous year. These two items alone account for the decline in yearly income. Economies in publication costs were sufficient to offset the loss in income and enabled the Association to close the year with a net addition to surplus of \$1,656.11.

The administrative and operating expenses were higher than for the year 1931, which is accounted for by the Executive Committee expense. This item varies from year to year because of the traveling expense of Committee members in attendance at the spring meeting of the Committee.

The investments of the Association have been given the most careful scrutiny, and while their present market value is below their cost, they are in the opinion of your Finance Committee, invested in securities of high credit concerns.

It will be necessary, during the coming year, for the Association to maintain its income from dues and subscriptions and to effect further economies in its expenses to show a favorable report at the close of the year 1933.

With due care in these two directions the present activities of the Association can be maintained within the yearly income of the Association.

Respectfully submitted,

F. S. DEIBLER, *Treasurer*

REPORT OF THE AUDITOR

December 22, 1932

*Executive Committee,
American Economic Association, Inc.,
Evanston, Illinois.*

DEAR SIRs:

We have completed the annual audit of the books and records of the American Economic Association, Inc., for the year from December 12, 1931, to December 15, 1932, and present the following exhibits together with our report thereon:

<i>Exhibit</i>	<i>Number</i>
Balance sheet—December 15, 1932	I
Statement of income and expense—Year ending December 15, 1932	II

Results from Operations

The year ending December 15, 1932, yielded a net income of \$1,656.11, an increase of \$41.49 over the previous year, as shown by the following condensed comparison of the operating results of the two periods:

<i>Particulars</i>	Year ending December 12, 1931	December 15, 1932	Increase or decrease
Income from—			
Dues	\$18,535.60	\$12,753.51	\$ 782.09
Interest on investments and bank balances ..	2,211.49	2,151.20	60.29
Loss on securities sold	321.85	.....	321.85
"Economic Essays"	12.56	149.62	137.06
Other sources	2.38	4.51	2.13
Total income	\$15,440.18	\$15,058.84	\$ 381.34
Expenses and costs—			
Administrative and other operating expenses \$	5,587.67	\$ 5,957.43	\$ 369.76
Publication costs	14,852.97	13,675.30	1,177.67
Publication income	6,615.08	6,230.00	385.08
Total expenses and costs	\$18,825.56	\$18,402.73	\$ 422.83
Net income	\$ 1,614.62	\$ 1,656.11	\$ 41.49

A decrease of 154 in the membership roll was sustained during the year 1932; in 1931 there was a decrease of 78 members.

The principal increase in administrative and other operating expense was caused by the Executive Committee expense of \$525.94, which was \$169.58 in excess of the 1931 expenditure, and the expense of the Income Statistics Committee of \$200.82, which was \$50.82 in excess of the appropriation made therefore by the Executive Committee.

The following summary presents a comparison of the publication income and expenses for 1931 and 1932 and the budget for 1932 submitted by the managing editor:

Report of the Auditor

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Particulars	Year		Budget for 1932
	1931	1932	
Income—			
Subscriptions other than from members ...	\$ 5,132.45	\$ 5,017.31	
Sales of copies	749.06	608.54	
Advertising	783.57	604.15	
Total income	<u>\$ 6,615.08</u>	<u>\$ 6,230.00</u>	
Expenses—			
Printing	\$ 5,648.20	\$ 5,189.41	\$ 5,400.00
Editor's honorarium	2,500.00	2,500.00	2,500.00
Contributions	1,458.25	1,451.00	1,500.00
Proceedings	1,919.18	1,819.75	.....
Handbook	589.54	.....	.....
Other costs	2,742.80	2,715.14	2,600.00
Total expenses	<u>\$14,852.97</u>	<u>\$18,675.30</u>	<u>\$12,000.00</u>
Net expenses	<u>\$ 8,237.89</u>	<u>\$ 7,445.30</u>	

The above budget was based on a printing of 4,800 copies, and was maintained until December when it was decreased by 200 copies. The total pages for the year were 828. During 1931 4,400 copies of each issue were printed and the total pages were 886.

No handbook was published during 1932; 4,200 copies of the *Proceedings*, constituting 316 pages, however, were published at a cost of \$1,819.75; the 4,800 copies of the 1931 *Proceedings*, containing 308 pages, cost \$1,919.18.

Balance Sheet—December 15, 1932

Cash in checking and savings accounts was reconciled with a certificate received from the State Bank and Trust Company, Evanston, Illinois.

The investment securities, with the exception of \$2,000.00 of certificates of deposit which we examined, were in the custody of the State Bank and Trust Company, who furnished us with a certified list thereof. At December 12, 1931, the finance committee made a detailed report of the securities owned; the only change in the holdings thereafter was the purchase of the certificates of deposit.

The membership extension fund was decreased during the year 1932 by \$143.61, which was spent for printing, postage, and salaries.

Two life memberships of \$100.00 each were transferred to unappropriated surplus on account of the death of members.

Changes in Financial Condition

The changes in the financial condition of the Association during the year 1932 are contained in the following condensed comparison of the balance sheets at December 12, 1931, and December 15, 1932:

Assets	December 12, 1931	December 15, 1932	Increase or decrease
Cash in bank	\$ 3,863.61	\$ 3,404.80	\$ 459.31
Investments, at cost	39,134.48	41,134.48	2,000.00
Receivables, net	1,013.25	951.95	61.30
Inventories, at cost	1,611.72	1,598.62	13.10
Furniture, fixtures, etc., at cost	1,189.99	1,141.84	1.85
Reserve for depreciation	636.84	723.19	91.35
Total assets	<u>\$46,126.21</u>	<u>\$47,498.00</u>	<u>\$1,371.79</u>

Liabilities and Net Worth

Accounts payable	\$ 188.95	.....	\$ 153.95
Unearned income	2,272.49	\$ 2,270.78	1.76
Membership extension fund	4,667.78	4,524.12	143.61
Life memberships	5,550.00	5,850.00	200.00
Surplus—			
Balance—December 12, 1981	33,497.04	33,497.04	.....
Net income for the year ending			
December 15, 1982		1,656.11	1,656.11
Transfer from life memberships to			
surplus—1982		200.00	200.00
Total liabilities and net worth.....	<u>\$46,126.21</u>	<u>\$47,498.00</u>	<u>\$1,871.79</u>

We appreciate the courtesies extended to us during the course of the audit.

Very truly yours,

E. L. KOHLER AND COMPANY
Certified Public Accountants

EXHIBIT I
AMERICAN ECONOMIC ASSOCIATION, INCORPORATED
BALANCE SHEET, DECEMBER 15, 1932

Assets

CURRENT ASSETS AND INVESTMENTS:

Cash in State Bank and Trust Company, Evanston, Illinois	\$ 3,404.80		
Investments, at cost	41,184.48		
Receivables—			
Review advertising	\$ 156.00		
Interest accrued on investments	545.03		
Membership dues	458.75		
Publication sales	173.17		
Subscriptions	19.00		
Total receivables	\$ 1,351.95		
Less—Reserve for doubtful accounts	400.00	951.95	
Inventories, at cost—			
“Economic Essays”	\$ 1,219.20		
Cover stock	184.62		
Stamped envelopes	239.80	1,598.62	\$47,084.85

FURNITURE, FIXTURES AND BOUND

PERIODICALS, at cost	\$ 1,141.84		
Less—Reserve for depreciation.....	728.19	413.65	
Total assets			<u>\$47,498.00</u>

Liabilities and Net Worth

CURRENT LIABILITIES:

Unearned income—			
Membership dues	\$ 292.50		
Subscriptions	1,978.23	\$ 2,270.73	
MEMBERSHIP EXTENSION FUND		4,524.12	

NET WORTH:

Life memberships	\$ 5,350.00		
Surplus unappropriated—			
Balance—December 12, 1931	\$33,497.00		
Net income—Year ending December 15, 1932 (Exhibit II)	1,656.11		
Transfer from life memberships	200.00	35,353.15	40,708.15
Total liabilities and net worth			<u>\$47,498.00</u>

EXHIBIT II
AMERICAN ECONOMIC ASSOCIATION, INCORPORATED

STATEMENT OF INCOME AND EXPENSE
YEAR ENDING DECEMBER 15, 1953

<i>Particulars</i>	<i>Amount</i>	
INCOME FROM DUES:		
Regular members (less \$365.00 defaulted dues unpaid at December 15, 1953)	\$12,371.01	
Subscribing and contributing members	332.50	\$12,703
OTHER INCOME:		
Income from investments—		
Interest earned on—		
Bonds	\$ 2,014.86	
Certificates of deposit	108.74	
	\$ 2,123.10	
Less—Custodian's fee	89.50	\$ 2,033.60
Interest earned on savings and checking accounts	67.60	
Royalties on "Economic Essays"	147.87	
Profit on sale of "Economic Essays"	1.75	
Miscellaneous income	4.51	2,305.
Total income		\$15,058.
ADMINISTRATIVE AND OTHER OPERATING EXPENSES:		
Secretary's salary	\$ 1,000.00	
Office salaries	2,963.84	
Postage	326.19	
Stationery and printing	118.15	
Office supplies	80.25	
Telephone and telegrams	66.48	
Insurance	78.10	
Depreciation	91.85	
Annual meeting	374.72	
Executive Committee expense	525.94	
Income Statistics Committee expense	200.82	
American Council of Learned Societies	65.00	
Auditing	50.00	
Other expenses	72.09	\$ 5,957.43
PUBLICATION EXPENSES:		
Printing	\$ 5,189.41	
Editor's honorarium	2,500.00	
Editor's traveling expenses	47.46	
Editorial expenses and supplies	2,638.67	
Contributions	1,451.00	
Proceedings	1,819.75	
Sundry publication expense	29.01	
Total publication expenses	\$18,675.30	
Publication income—		
Subscriptions other than from members	\$5,017.31	
Sales of copies	608.54	
Advertising	604.15	6,230.00
Total expenses		13,442.
Net income for year (Exhibit I)		\$ 1,656.

REPORT OF THE MANAGING EDITOR OF THE AMERICAN ECONOMIC REVIEW FOR THE YEAR ENDING DECEMBER, 1982

The cost of the *Review* during 1982 was \$11,780.86, as compared with \$982.29 for 1981. There will be a small additional amount for postage on the excerpts and reprints for the December number, the charge for which will not come from the printer when the books of the treasurer had to be paid. The total expenditure is slightly less than the budget estimate made a year ago, namely, \$12,000.00.

The number of copies printed averaged 4,250 per issue, as compared with 4,000 in 1981. The number of pages in the volume just completed is also somewhat less—792, as compared with 814.

The expenses during 1982 by principal items were as follows:

Printing (paper, reprints, postage, etc.)	\$ 5,148.28 ¹
Editorial	2,500.00
Clerical	2,800.00
Supplies	886.18
Contributors	1,451.00
	\$11,780.86

On the basis of printing 4,100 copies the following budget for 1983 is submitted:

Printing (paper, reprints, postage, etc.)	\$ 5,400.00
Editorial	2,500.00
Clerical	2,800.00
Supplies	800.00
Contributors	1,500.00
	\$12,000.00

The following persons have served as editors during the past year: Professors F. B. Garver and N. S. B. Gras, whose terms expire this year; Dr. C. Gray and Professor M. W. Watkins, whose terms expire in 1983; and Professors F. A. Bradford and P. T. Homan, whose terms expire in 1984. During the year 218 persons have co-operated in writing leading articles, communications, reviews and notes.

On September 18 the Social Science Research Council voted to discontinue *Social Science Abstracts* with the end of Volume IV for 1982. The editors of the *Review*, therefore, have under consideration the question of resuming abstracts in our *Review*. It appears, however, impracticable to reach an immediate decision until after the meeting of the board of directors of *Social Science Abstracts*, which will be held January 5. Suggestions have been made for continuation of the abstracts by a commercial firm. If a satisfactory arrangement can be made, it would seem inadvisable for the *Review* to undertake this service. If the abstracting, however, be resumed by the *Review*, the editors believe that a different plan should be adopted from that in use from 1911 to 1928.

The Editor's report is based on the calendar year. The Treasurer's and the Auditor's reports are on the fiscal year December 12, 1981, to December 15, 1982.

Another question which is under discussion by the board of editors is the publication of the thesis list as a separate supplement. This list encroaches upon the space available for articles and reviews; and it is believed by some that this could be more serviceable if printed as a separate pamphlet in the same way as is the list of members.

Respectfully submitted,
DAVIS R. DEWEY, *Managing Editor*

TABLE I
PAGES GIVEN TO EACH SECTION*

Year	Leading articles	Reviews	New books listed	Documents, reports, etc.	Periodical abstracts	Notes	Theses	Totals
1920	395	109	155	98	122	42	15	836
1921	331	103	133	39	117	38	11	772
1922	293	91	158	35	124	37	13	752
1923	298	122	184	26	113	43	14	800
1924	339	110	191	23	113	42	18	836
1925	325	131	178	27	110	38	23	832
1926	270	137	184	15	108	43	27	784
1927	262	120	195	32	114	42	27	792
1928	335	111	176	12	121	45	23	823
1929	315	181	173	18	1	52	23	763
1930	348	154	210	12	0	53	29	811
1931	369	170	197	13	0	40	25	814
1932	351	175	203	12	0	27	24	792

* Figures for 1911-19 may be found in the report for 1930, published in the *Supplement*, March, 1931, p. 284.

TABLE II
EXPENDITURES

Year	Printing	Salary of editor	Payments to contributors	Clerical	Supplies	Totals
1920	\$6,656.31	\$1,500.00	\$1,122.75	\$1,595.64	\$307.20	\$11,181.90
1921	5,646.97	1,500.00	64.50	1,472.50	319.97	9,003.94
1922	4,795.28	1,500.00	—	1,370.00	314.77	7,980.05
1923	5,032.59	1,500.00	—	1,650.09	437.86	8,620.54
1924	5,423.28	1,500.00	1,110.25	1,464.01	305.32	9,802.86
1925	5,713.01	1,500.00	1,133.50	1,757.32	406.36	10,510.19
1926	5,332.24	1,500.00	1,128.00	1,589.86	323.43	9,873.53
1927	5,619.20	1,500.00	1,013.75	1,806.50	297.25	10,236.70
1928	5,321.95	1,500.00	1,190.50	1,956.50	375.37	10,344.32
1929	4,927.62	1,500.00	1,328.75	2,004.50	261.72	10,022.59
1930	5,386.67	2,500.00	1,447.75	2,253.00	347.80	11,935.22
1931	5,399.94	2,500.00	1,454.75	2,300.00	327.60	11,982.29
1932	5,143.23	2,500.00	1,451.00	2,300.00	336.13	11,730.36

REPORT OF THE FINANCE COMMITTEE

There have been no changes in the investment list during the year ending December 15, 1932. Notice has been received that Sinclair Crude Oil Purchasing Company 10 year, Series "A" 5½'s, due 1938, have been called for payment at 101½ on January 16, 1933.

The total investment list of the Association, carried at cost or market, whichever is lower, now amounts to \$80,684.70. The market value of the same on December 21 was \$7,894.78 below cost, a decline of only 2.7 per cent during the year. The investments of the Association have been formally reviewed quarterly by your Committee, and have in fact been investigated much more frequently than this. The annual interest return from this list amounts to \$2,014.87.

Your Committee has regarded the portfolio of the Association as an investment account. It has followed the policy of watching for stability of earnings of the issuing companies, and their ability to meet the principal amount at its maturity. During one of the most prolonged and serious depressions in the history of our country, the Committee is glad to report that there has been no default to date of either interest or principal.

The list, at market or cost, whichever is lower, stands as follows:

0 Alabama Power Co. 1st Mtge. Lien and Ref. 5's, due 1956	\$ 900.00
0 Bell Telephone Company of Pa. 1st and Ref. 5's, due 1948	1,973.00
0 By-Products Coke Corp. 1st Mtge. 5½'s, due 1945	460.00
0 Chicago, Rock Island & Pacific Equip. Tr. Series "P" 4½'s, due 1936	600.00
0 City of Cleveland Water Works 4½'s, due 1938	970.00
0 City of New York Corp. Stock Water 4's, due 1930	850.00
0 Commonwealth Edison Co. 4's, due 1931	1,760.00
0 Crown Willamette Paper Co. 1st S.F. 6's, due 1951	640.00
0 Detroit Edison Co. Gen. and Ref. Series "D" 4½'s, due 1961	970.00
0 Erie Railroad Co. Ref. and Imp. 5's, due 1975	250.00
0 Great Northern Railway Co. Gen. Mtge. 7's, due 1936	1,180.00
0 Illinois Bell Telephone Co. 1st and Ref. "A" 5's, due 1956	2,007.50
0 Illinois Central Railroad Co. 1st and Ref. "A" 5's, due 1968	780.00
0 Louisville Gas and Elec. Co. 1st and Ref. 5's, due 1952	915.00
0 National Dairy Products Corp. 5¼'s Debentures, due 1948	850.00
0 North American Edison Co. Deb. Series "C" 5's, due 1969	760.00
0 Northern Pacific Railway Co. Ref. and Imp. 6's, due 2047	3,300.00
0 Ohio Power Co. 1st and Ref. "D" 4½'s, due 1956	950.00
0 Pacific Gas and Electric Co. 1st and Ref. 5½'s, due 1952	1,970.00
0 Pacific Mills, Ltd. 1st Serial 6's, due 1935	1,460.00
0 Pennsylvania Railroad Co. Deb. 4½'s, due 1970	680.00
0 Sinclair Crude Oil Purchasing Co. 10-yr Series "A" 5½'s, due 1938 ..	1,010.00
0 Southern Ill. and Mo. Bridge Co. 4's, due 1951	520.00
0 Southern Pacific Railway 50-Yr 4½'s, due 1981	450.00
0 United Biscuit Co. 6's, due 1942	970.00
0 United States of America Treasury 3½'s, due 1949	1,484.20
0 United States of America 4th Liberty Loan 4¼'s, due 1938	2,075.00

Respectfully submitted,

C. H. CRENNAN, *Chairman*

GEORGE B. ROBERTS

F. S. DEIBLER

REPORT OF THE REPRESENTATIVES OF THE ASSOCIATION ON THE SOCIAL SCIENCE RESEARCH COUNCIL

Your representatives on the Social Science Research Council submit this brief report. Its brevity is explained in part by the fact that during the past year the Council has devoted its attention more to watching and appraising its work under way than to initiating new ventures. This is explained by the stage its projects have been in, not by lack of promising new things it might undertake.

Three facts of interest to the general membership of our Association may be mentioned. (1) The Council and its work have been satisfactorily re-financed for a new period. This means that donors have regarded the work done and in prospect as worth while. (2) After many discussions and a survey of the use made of *Social Science Abstracts*, the Council at its September conference voted to discontinue this publication with the present volume (and index). It should be said that this action contains no reflection upon the work done by those connected with the *Abstracts*. That work has been well done. The *Abstracts*, however, failed to be inclusive enough to satisfy those with a highly specialized and bibliographical interest, or to be long enough to satisfy those who do not have access to the abstracted article or cannot read it in the language in which printed. Investigation showed that only a limited number of social scientists have made much use of the *Abstracts*. In view of this fact and in view of the seeming impossibility of devising at this time a superior service, the Council felt itself unable to assume responsibility for requesting a new grant to continue this publication. (3) A committee has made an extended study of recruitment and fellowships in the social sciences and presented a provisional report, the distribution of which awaits the results of further investigation. The Council feels that there is serious need for fellowships for really promising persons immediately upon graduation from college. Certainly in past years many promising young persons have been unable to enter upon graduate work with the object in view of becoming trained social scientists. The Council now proposes to experiment with such fellowships in limited number, while continuing its fellowships at the post-doctoral level. The Council feels, also, that there is a dearth of fellowships of the type that leaves the holder free to select his place of study and to move from one institution to another as the best program may require.

Respectfully submitted,

MAX HANDMAN
H. A. MILLER
A. B. WOLFE

REPORT ON THE ORGANIZATION AND ACTIVITIES OF THE JOINT COMMITTEE ON STATISTICS OF INCOME

Early in the year the three interested associations appointed a delegate to the Joint Committee on the Statistics of Income as follows: the American Association of University Instructors in Accounting, Professor James L. Dohr (Columbia), Professor Howard C. Greer (Chicago), and Professor William A. Paton (Michigan); the American Economic Association, Professor J. Franklin Ebersole (Harvard), Professor Ralph C. Epstein (Buffalo), and Professor Robert Murray Haig (Columbia); and the American Statistical Association, Professor William L. Crum (Harvard), Professor Willford I. King (New York University), and Dr. Simon S. Kuznets (National Bureau of Economic Research).

The Joint Committee met in New York on June 1, 1932, elected Dr. King its chairman, adopted certain general principles to guide its study of the problem assigned to it, discussed at some length certain of the more significant specific criticisms and suggestions relating to the federal income tax statistics, and established a subcommittee empowered to consider the mass of suggestions submitted. This subcommittee (Ebersole, Epstein, Kuznets, and the chairman) met immediately in New York, and prepared a preliminary summary and report as a basis for further consideration, by correspondence and otherwise.

During the summer, consideration of this preliminary summary, and of various specific suggestions which were submitted by or on behalf of the different members of the Joint Committee, proceeded by mail. The members of the subcommittee (to which, by consent, Crum had been added) examined in detail the various proposals, and exchanged communications concerning the major points of interest. The preliminary summary, with subsequent notations and addenda, was thus made ready for consideration at the November meeting of the Joint Committee. The Joint Committee held a second meeting in New York on November 18, adopted the preliminary summary as the basis of discussion, and after amending this summary extensively and in detail, adopted the recommendations presented below—a draft of which was ordered made by Crum, from elaborate minutes submitted to him by the chairman.

Early in our work, it appeared desirable to adopt certain general aims to guide our investigation and to insure the organization of our program of changes along lines which could be defended in the event of their submission to government officials for action. These general aims can be summarized briefly as follows:

The Bureau of Internal Revenue now collects and publishes certain data on the annual flow of incomes, corporation incomes and expenditures, and balance sheet items. The existing information can be used to build an annual picture of the flow of purchasing power to individuals (above a certain income range), and of changes in the business activity and financial structure of most American corporations. But the existing tabulations omit many possible classifications and combinations of the data, which would be as

important as, or perhaps more important than, the present tabulations as a means of throwing light upon fundamental economic processes. We are fully aware that the primary purpose of the income tax return is to facilitate administration of the tax, and we are not in favor of overloading the tax blank with questions which are important only to economists and statisticians. But we do believe it is important to secure information, the proper study of which will enable legislative bodies and all interested citizens to understand and appraise the income tax from the point of view of its impact upon the total flow of income in the nation. The wisdom of future tax policy will depend considerably upon the degree of our knowledge of the basic facts which presumably will be brought to light by some of the proposed changes. The sweep of governmental interest in economic and business matters is now so wide that the information is likely to be revealed by every item of the proposed changes and will be of large usefulness in guiding legislative policies. In fact very few changes are being recommended in the tax blank. This is partly because the bulk of the information which now seems desirable to be added to that already published can readily be compiled from the returns as they are now filed, and partly to avoid at this time recommendations which would entail extensive administrative acts and adjustments. Only the most pressing changes which involve alterations in the tax blank are suggested at this time.

It seemed wise to work out the specific recommendations in great detail; and, although it has been necessary to present many of them to the associations only in such form as makes evident the principle involved, it is assumed that great care will be exercised to complete the detail and render each recommendation tangible and definite before its final submission to Washington authorities. In order to pave the way for this part of the work, the recommendations have been developed with reference to the tax blank now in use, and with reference to *Statistics of Income* as now published (1929 edition).

The Committee has constantly in mind the necessity of setting up its recommendations with due regard for the dictates of governmental economy. Fortunately, it has been able to make many recommendations looking to the elimination of work now being done; and it is quite likely that the final set of detailed recommendations to which this report may lead will secure a net reduction in the size of *Statistics of Income* and in the work and cost of preparing it, except in certain years when supplementary surveys are made.

In reference to this last point, it should be noted that certain of the present and proposed tabulations are such that there is no need of having them every year. It is accordingly being recommended that many tabulations be made only at intervals of three to five years, and it is believed that this practice would bring a large saving in labor and cost, without greatly impairing the significance and usefulness of the data.

A technical device which would save an important amount of space in the publications and cost in their preparation is the adoption of larger units for stating the results in many tables; the use of hundreds or thousands

where dollars are now used in numerous cases, and the use of millions where thousands are now used, would secure important economies without reducing the usefulness of the data. The aim to have the various tables "check" to the nearest dollar is of such slight importance in tabulations of this kind that the extra cost involved cannot possibly be justified.

With these general aims and considerations in view, the Committee has sought to make a series of recommendations which would result in obtaining a clear picture of changes in individual and corporate incomes in the United States, the distribution of such income by industrial and occupational groups, the changes in the financial position of the corporations of the country, and the impact of the income tax upon various economic groups without burdening unduly the taxpayer in making out his return or the Bureau of Internal Revenue in compiling and publishing the information based upon the returns. It is believed that the recommendations that are now being proposed will involve only slight changes in the tax blank, and might result—except once in three to five years—in an actual reduction in the size and cost of *Statistics of Income*. No close estimate on this last point can be made until the recommendations are worked out in greater detail.

The Joint Committee makes the following recommendations to each of the three associations represented:

1. That the Association approve in principle the specific recommendations listed below.
2. That the Association authorize the appointment of a delegation to a new Joint Committee, having power to: (a) fill in technical details of present recommendations; (b) establish and maintain contact, presumably through an agent, with federal officers, with a view to securing their cooperation in obtaining adoption of the proposed changes; (c) continue the investigations of the present Joint Committee, in order to work out further recommendations as needed.
3. That the Association authorize the Joint Committee to select such an agent as implied under 2(b) above, and provide a moderate appropriation for salary and traveling expenses of such an agent, or empower the Joint Committee to seek such an appropriation on the Association's behalf from other sources.

Respectfully submitted,

J. F. EBERSOLE
RALPH C. EPSTEIN
MURRAY HAIG

REPORT OF THE JOINT CENSUS ADVISORY COMMITTEE

The Advisory Committee on the Census held one meeting in 1932. At this meeting the following resolutions were adopted:

208. *Resolved*, That it is the sense of the Advisory Committee that the material giving a complete description of the Census of 1930, methods followed, scope, etc., shall not be printed as a publication of the Census Bureau but that copies shall be kept on file for the guidance of the Director at future enumerations.

209. *Resolved*, That it is the sense of the Advisory Committee that the decennial census of wealth, public debt, and taxation should be proceeded with by the Census Bureau.

210. *Resolved*, That it is the sense of the Advisory Committee that the Director of the Census should proceed with the regular decennial census of institutions covering the same classes as were included in the last decennial enumeration.

211. *Resolved*, That Dr. Paul E. Cherington serve as a committee of one to review the manuscript of one or two of these special bulletins on distribution, and make such recommendations regarding changes or additions as seem to him desirable.

212. *Resolved*, That the Committee approves the arrangements whereby the volumes under each main subject covered by the census are published as a separate series or set of volumes independently numbered so that there is one set of volumes on population, another on agriculture, etc., instead of numbering all the volumes consecutively as in previous censuses; that it also approves using the octavo size for those volumes for which the tabular matter can be conveniently presented in that format, even though most of the volumes will be of quarto size.

213. *Resolved*, That it is the sense of the Advisory Committee that it approves the proposed plans for the distribution of the final volumes as outlined by Dr. Hill.

214. *Resolved*, That it is the sense of the Advisory Committee that if possible the maps used for geographical divisions at the last census should be preserved and suitable filing cases secured for their safe storage.

215. *Resolved*, That it is the sense of the Advisory Committee that it strongly supports the Director in having family cards preserved and stored for the time being.

216. *Resolved*, That it is the sense of the Advisory Committee that there should be an Abstract compiled and printed for the Fifteenth Census as such.

217. *Resolved*, That it is the sense of the Advisory Committee that the motion in regard to the index be tabled and that Professor Chaddock and Professor King be appointed as a subcommittee on the census index and instructed to report to the committee at a later date.

Respectfully submitted,

E. E. DAY, *Chairman*

REPORT OF COMMITTEE ON RESEARCH

The Committee on Research that was authorized by the Executive Committee at the Washington meeting (*Proceedings*, March, 1982, p. 280) met in Washington on May 15, 1982, at the offices of the American Council of Learned Societies. There were present: Max S. Handman, chairman, and professors George E. Barnett and F. S. Deibler. In addition there were present Dr. Meredith B. Givens, representing the Social Science Research Council, and Dr. Mortimer Graves, representing the American Council of Learned Societies.

The problem for consideration was the advisability of the appointment of a standing committee on research by the American Economic Association. The practices of a number of other learned societies were examined as well as the report of the informal committee of the American Economic Association that was made at the last meeting of the Association (*Proceedings*, 1981, p. 35).

Our Committee discussed very fully the whole question of the encouragement and stimulation of research and while we fully realize that the effectiveness of such a Committee is naturally limited because research is so much the matter of the individual scholar, yet we feel that there are occasions when a standing committee can serve a very definite and useful purpose. This is particularly true in problems where the united efforts of the Association (operating with similar efforts of other associations) is needed in order to accomplish a scientific purpose in view. We therefore voted to make the following recommendations to the Executive Committee:

That the Executive Committee of the American Economic Association appoint a standing committee on research to consist of three members.

That the activities of the committee proceed along such lines as the following:

- (1) To aid in co-operation with other scientific associations in the development of modes of collecting statistical and other information by governmental agencies. The Committee discussed in particular detail the problem of the collection of the fundamental statistical data so necessary to an adequate understanding of economic processes. It felt that the enormous activities connected with the collection of quantitative information by national, state, and municipal government should be re-evaluated by a group of competent scholars and some concerted effort be made to establish the basis for the collection of this material on the fundamental problems which are inherent in the discipline using statistical data, in so far as such re-evaluation does not run counter to the fundamental governmental purposes for which these collections are primarily made. If with a slight shift of emphasis, and perhaps a slight additional expense or no additional expense the material collected can be made to serve more adequate scientific as well as governmental purposes, the American Economic Association, along with similar scientific bodies, is entitled to put forth every effort in order to accomplish this aim. The Committee on Research

refers this problem to the Association, suggesting that a committee be set up to consider the national aspect, while to regional committees, discussed below, shall be entrusted the state and municipal aspects of this problem.

- b) To aid in securing the co-operation of various governmental agencies in making available for scholars unpublished statistical data and other collections of information of scientific interest.
- c) To foster and as far as possible to promote research in regional problems by regional bodies. This aspect of the problem was felt to be particularly important in the light of the uneven development both in research personnel and research facilities over the country. The Association can do a good deal in stimulating research interest in regional problems by giving these problems some share of attention on the annual program. Furthermore with some slight financial assistance small organizations could be set up in various states or national regions which shall act as regional clearing bodies for projects and suggestions bearing either on regional research problems or on regional research needs.
- d) To endeavor to secure co-operation in monographic studies along comparable lines on such topics as state and municipal finance and other subjects of common interest. It was thought that some useful co-ordination might be also accomplished in this direction in connection with doctoral dissertations.

3. That the committee on research serve as a liaison body between the American Economic Association and other scientific organizations in considering research proposals. It may, on its own initiative, or upon the request of a member or members of the Association, or of another association, develop projects for investigation and research. All projects shall be presented to the Executive Committee for approval and for the appointment of an appropriate committee for the conduct of the work.

4. It is further recommended that the committee on research be authorized to co-operate with the American Research Library Association in developing plans for the preservation of significant regional materials of scientific interest and for making available at convenient centers throughout the country public documents of especial interest to social scientists.

Respectfully submitted,

MAX S. HANDMAN
GEORGE E. BARNETT
F. S. DEIBLER

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Supplement.—Thirtieth Annual Meeting:

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Supplement.—Thirty-first Annual Meeting:

Papers and Proceedings. Economists in Public Service; Interest on Investment a Manufacturing Cost Factor; Control of Marketing Methods and Costs; War and the Supply of Capital; War and the Rate of Interest; Index of the Cost of Living; Securing the Initiative of the Workman; A Legal Dismissal Wage; After-War Gold Policies; Foreign Exchange; Stabilizing the Dollar; Tenancy of Landed Property; Price-Fixing; Economic Theory in an Era of Readjustment; Psychology and Economics; The Open Door and Colonial Policy; Reports of Committees on Foreign Trade and Purchasing Power of Money. Pp. 368. 1.25

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Papers and Proceedings. Excess Profits Taxation; Germany's Reparation Payments; International Supervision over Foreign Investments; Results of a Balanced Industrial System; Employee's Representation in Management of Industry; Prices and reconstruction; Banking Policy and Prices; Large-Scale Marketing; Reports of Committees on Foreign Trade, Co-ordination in Taxation, Census Advisory Committee. Pp. 278. 1.25

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The American Economic Review

L. XXIV, No. 1 SUPPLEMENT

March, 1934

Papers and Proceedings
of the
Forty-sixth Annual Meeting
of the
American Economic Association

PHILADELPHIA, PENNSYLVANIA

DECEMBER, 1933

Edited by the Secretary of the Association

Publication Office: 450 Alhambra Street, Menasha, Wis.
Executive Office: American Economic Association, Northwestern
University, Evanston, Ill.
Editorial Office: 222 Charles River Road, Cambridge, Mass.

Entered at the post office at Menasha, Wisconsin, as second class matter. Authorization for mailing at special rate of postage provided for in the Act of February 26, 1935, authorized in paragraph 4, section 1103, P. L. and A., authorized December 16, 1935.

Price, \$1.25

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V. XXIV, No. 1

SUPPLEMENT

March, 1934

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Forty-sixth Annual Meeting
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American Economic Association



Edited by the Secretary of the Association



Publication Offices: Menasha, Wisconsin, and Evanston, Illinois
Subscriptions: American Economic Association, Evanston, Illinois

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The George Banta Publishing Company**



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PROGRAM OF THE FORTY-SIXTH ANNUAL MEETING

WEDNESDAY, December 27, 1933

10:00 A.M. ROUND TABLE CONFERENCES

1. *The History of Recovery*

Chairman: Herbert Heaton, University of Minnesota

Discussion: Willard L. Thorp, United States Department of Commerce; Harold A. Innis, University of Toronto; Walton Newbold, London, England; D. B. Copland, University of Melbourne

2. *Public Utilities in the Depression*

Chairman: Martin G. Glaeser, University of Wisconsin

Discussion: E. W. Morehouse, Wisconsin Public Service Commission; L. R. Nash, Stone and Webster Engineering Corporation, New York City; Julian S. Duncan, St. John's College; R. H. Montgomery, University of Texas; Paul J. Raver, Northwestern University; Marcus C. Whitman, University of Alabama

3. *Imperfect Competition* (Joint session with Econometric Society)

Chairman: Joseph A. Schumpeter, Harvard University

Discussion: Irving Fisher, Yale University; E. H. Chamberlin, Harvard University; Theodore C. Yntema, University of Chicago; William Jaffé, Northwestern University

3:00 P.M. FIRST SESSION

Chairman: Emory R. Johnson, University of Pennsylvania

General Topic: *The Transportation Problem*

Papers: H. G. Moulton, Brookings Institution; W. J. Cunningham, Harvard University

Discussion: J. W. Barriger, III, Railroad Division, Reconstruction Finance Corporation; Julius H. Parmelee, Bureau of Railway Economics; D. Philip Locklin, University of Illinois; G. Lloyd Wilson, University of Pennsylvania

6:00 P.M. MEETING OF THE EXECUTIVE COMMITTEE

7:00 P.M. SECOND SESSION (Joint session with the American Sociological Society, the American Political Science Association, and the American Statistical Association)

Chairman: Roland Morris, Former Ambassador to Japan

Presidential Addresses: E. B. Reuter, American Sociological Society; Isidor Loeb, American Political Science Association; Abbott Payson Usher, Vice-President, American Economic Association

THURSDAY, December 28, 1933

10:00 A.M. BUSINESS MEETING (Reports of Officers and Committees, etc.)

10:00 A.M. ROUND TABLE CONFERENCES

1. *Marketing under Recovery Legislation* (Joint session with the American Farm Economic Association and the National Association of Teachers of Marketing and Advertising)

Chairman: Roland S. Vaile, University of Minnesota

Discussion: George Filippetti, University of Minnesota; Fred E. Clark, Northwestern University

2. *Economics of the Recovery Act*

Chairman: Joseph H. Willits, University of Pennsylvania

Discussion: John Dickinson, Assistant Secretary of Commerce; Frank A. Fetter, Princeton University; Otto Nathan, Princeton University; Alexander Sachs, National Recovery Administration; H. Parker Willis, Columbia University

3. *Measurement of Unemployment* (Joint meeting with the American Statistical Association)

Chairman: Meredith H. Givens, Social Science Research Council

Papers: Ewan Clague, Philadelphia School of Social Work; Corrington Gill, Federal Emergency Relief Administration; J. Douglas Brown, Princeton University

be published by the American Sociological Society.

be published by the American Political Science Association.

be published in the *American Economic Review*.

DISCUSSION: Bryce M. Stewart, Industrial Relations Counselors, Inc.; Walton H. Hamilton, Yale University; Alvin H. Hansen, University of Minnesota

10:00 A.M. MEETING OF THE COMMITTEE ON RESEARCH

2:30 P.M. THIRD SESSION

Chairman: Abbott Payson Usher, Harvard University

General Topic: *Banking and Monetary Legislation*

Papers: E. W. Kemmerer, Princeton University; H. Parker Willis, Columbia University; George F. Warren, Cornell University

DISCUSSION: William H. Steiner, Brooklyn College; Leonard L. Watkins, University of Michigan; William O. Weyforth, Johns Hopkins University

8:00 P.M. FOURTH SESSION (Joint session with the American Farm Economic Association)⁴

Chairman: Frank A. Fetter, Princeton University

General Topic: *The Rehabilitation of Agriculture*

Papers: Hon. Henry Wallace, Secretary of Agriculture; B. H. Hibbard, University of Wisconsin

DISCUSSION: I. G. Davis, Connecticut Agricultural College; Frank D. Graham, Princeton University

FRIDAY, December 29, 1933

9:00 A.M. BUSINESS MEETING (Election of Officers, etc.)

10:00 A.M. FIFTH SESSION

Chairman: Franklin S. Edmonds, Philadelphia, Pennsylvania

General Topic: *Problems of Public Finance in the Depression*

Papers: Fred R. Fairchild, Yale University; Herbert D. Simpson, Northwestern University

DISCUSSION: F. P. Weaver, Pennsylvania State College; James W. Martin, University of Kentucky; Harley L. Lutz, Princeton University; Jens P. Jensen, University of Kansas

12:00 M. MEETING OF THE EXECUTIVE COMMITTEE

2:30 P.M. SIXTH SESSION (Joint session with the American Association for Labor Legislation)

Chairman: A. H. Williams, University of Pennsylvania

General Topic: *Unemployment and Public Works*

Papers: Sumner H. Slichter, Harvard University; Henry Matson Waite, Deputy Administrator, Federal Emergency Administration of Public Works⁵

DISCUSSION: Richard M. Neustadt, Pennsylvania State Employment Office; Isador Lubin, Commissioner, Bureau of Labor Statistics;⁶ William Louch, University of Pennsylvania;⁶ Edward Berman, University of Illinois⁶

⁴ To be published by American Farm Economic Association.

⁵ To be published by American Association for Labor Legislation.

⁶ No manuscript received.

THE purpose of the American Economic Association, according to its charter, is the encouragement of economic research, the issue of publications on economic subjects, and the encouragement of perfect freedom of economic discussion. The Association as such will take no partisan attitude, nor will it commit its members to any position on practical economic questions. It is the organ of no party, sect, or institution. Persons of all shades of economic opinion are found among its members, and widely different issues are given a hearing in its annual meetings and through its publications. The Association, therefore, assumes no responsibility for the opinions expressed by those who participate in its meetings.

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ROUND TABLE CONFERENCES THE HISTORY OF RECOVERY

HERBERT HEATON, *Chairman*

HERBERT HEATON.—Recovery is one of the commonest of economic experiences. In the United States alone during the last 128 years there have been $16\frac{1}{4}$ recoveries, if we count 1933 as a quarter. Unless we are Bourbons we should therefore know how to recover by now, and it should have been easy for some economic historian to have written an account of the process in a book which would surely have been a best-seller. The fact that no such book has appeared is a measure of the lack of historical investigation on the subject. Wesley Mitchell has written a little on the phenomena of recovery, but, in general, emergence from the trough of depression is the "forgotten man" of business cycle studies. We usually are content to say, "Then came recovery," just as we say, "Then came the war," "the dawn," or "the Industrial Revolution." The topic therefore seems worthy of consideration by a round table of economic historians. Perhaps as a result of this meeting research may be begun which will be of value to those who have to face the next depression.

The questions waiting to be answered are legion. How has recovery happened in the past? Is there sufficient similarity between the many periods to allow us to make generalizations, or is each recovery unique? What are the first signs, and what are the initial stimuli which start the upward movement? It is a curious coincidence that many of the machine-smashing outbursts of the first half of last century came just when recovery was getting under way; if the coincidence holds today, an uprising of the embattled farmers of the Middle West may mean the dawn of better times, and the farmers should have been encouraged to rise in 1930. How far do accidental forces play a part, and what has been the effect of low interest rates, expansion of activity in the construction industries, war, new inventions or commodities, gold discoveries, etc.? What, if anything, have governments contributed, by repairing weak spots in the economic fabric, by correcting defects, or by directly stimulating revival? Has their action been helpful, or must we agree with the British economist who declared recently that the business cycle decided, in its infinite wisdom, that the time was ripe in the summer of 1932 for an upward movement, and since that time has persisted in going up "despite the fat-headedness of the German government, the pig-headedness of the British government, and the feather-headedness of the American government"? The answer to these and other questions calls for detailed and laborious research, in the United States and in other countries. Just as developments in one country may lead to crisis and depression in another, recovery in one land may react favorably on other places. For that reason the discussion will be opened up by speakers from North America, England, and Australia.

WILLARD L. THORP.—There is no phase of the business cycle more difficult of definition and determination than recovery. Take as an illustration the

history of the nineties. When did recovery come in the United States? The record shows that the low point in the autumn of 1893 seemed to be followed by recovery. But the improvement came to an end in the last half of 1895, and industry returned to the depths by early 1897. Immediately thereafter, revival was very rapid for six months, but prosperity was not reached, and there followed a full year of little change. The final drive which brought industry back to prosperity came in the last months of 1898. Here was a period lasting five and a half years between the depth of the depression and the return of prosperity. There were upward movements and recessions. The final period of advance of the indexes was broken in the middle for about a year. How should we define the recovery phase of this particular cycle?

Periods of recession are sharp, and usually, though not always, clearly defined by spectacular events. Prosperity and depression are continuing periods of little change, whose terminals are fixed by the phase of recession and recovery. But recovery is an erratic process, seldom accompanied by any extraordinary events to provide an easy basis of demarcation. The problem is further complicated by the fact that recovery often appears in certain industries and in certain areas much more quickly than elsewhere. The various indexes show much less conformity in the upturn than in the downward swing. That this is true, even within a single type of observation, has already been demonstrated in the field of wholesale prices by Professor Mills in *The Behavior of Prices*.

At no point is there any better evidence of the staggered manner in which revivals come about than in the world pattern of business conditions. Ordinarily the downward turning points in the world pattern are fairly clear and exact. With the exception of the recession of 1929, most countries have participated in recessions in the past with a remarkable degree of simultaneity, but the records of revival have been quite different. Reviewing the history of the seventeen countries studied in *Business Annals*, the following facts appear:

Recovery in the nineties was recorded in seven countries in 1895, but two countries began their recovery in 1893, 1894, 1896, and 1897. Two countries did not join in this cycle.

Recovery after the 1900 peak was even more scattered. In 1900, two countries; 1901, three; 1902, three; 1903, four; 1904, three; and two not participating.

Recovery after 1907 showed the greatest uniformity to date, except the revival suddenly created by the War. In 1908, two countries reported revival; in 1909, twelve; in 1910, one; and in 1911, two.

Recovery after 1920 was again quite scattered: Two countries in 1921; 1922, five; 1923, four; 1924, two; 1925, one; and three not covered.

The record is clear on the point that recovery, from a world point of view, is seldom uniform in time among the various nations.

I trust you will not regard it as presumptuous of me to discuss briefly the present world picture under this general heading of recovery. I realize full well that one should never talk scientifically about recovery until the pa-

tient is actually well. Nevertheless there has been a good deal of recent comment concerning improvement in economic conditions throughout the world.

The Bureau of Foreign and Domestic Commerce, through its foreign service and its Regional Information Division in Washington, is preparing a report on economic conditions throughout the world, to be published early in 1984. Preliminary indications are that there are many encouraging signs now evident but I suspect that already more emphasis has been placed upon these reports than they deserve. The upward swings are still young. It must be remembered that there is no way of determining the permanence of the improvement. Furthermore, the advance is often from a very low level of activity. However, considering about forty countries on which detailed reports have come to my attention, seventeen clearly indicate that they may be experiencing recovery. In eleven cases this upward movement began in 1988. Many other countries show some indications of being on the same path, but I have only included those instances where there are considerable data to support the claim that recovery is present. Whether this fraction of seventeen out of forty calls for cheers or tears is a matter of individual interpretation, and doubtless you will desire further data. I hope that it will be supplied by the Bureau of Foreign and Domestic Commerce in the near future.

I know that the Chairman is eager for me to go back into history and recite the causes which have brought about recovery in this country in the past. As you all know, there are a number of conventional explanations which have grown up in our business history. It may be that more careful research will gradually support or reject these explanations. Thus we are told that in 1897 the recovery was the result of a most successful agricultural year in the United States with corresponding failure in Europe. In 1909 a marked optimism in financial circles swung commercial and economic activity into line. In 1922, the shortage of durable goods, particularly automobiles and buildings, brought about the revival.

I am certain that our researches into statistics can do much better than that in providing us with more complete explanations. There is one particular aspect of the problem which I should like to emphasize, and that is the part played in the past by the underlying secular trend. It seems fairly obvious that in a country where long-run development and expansion are taking place rapidly, the setbacks of the business cycle will be quickly overcome by the forces which are responsible for the underlying trend. To be sure, if one removes the trend from the various series, it may be possible to create rather severe statistical depressions; but they will not appear in indexes of employment or of production, where a new record high may be statistically below the trend.

In looking towards our own future, may I suggest that the problem of business cycles is made much more threatening by the fact that our trends of growth appear to be flattening out. In part this is due to the decreasing rates of increase of population, and in part to the disappearance of the frontier. Without a pronounced pull of the trend, we may find depressions tending to increase in length. It may well be that because of the change in

secular trend, which we have often discarded in our analysis, the records of recovery in the future will be quite different from the processes which history recorded in the years prior to the War.

WALTON NEWBOLD.—In this paper I propose to discuss the way in which, actively or passively, nations have climbed out of the major depressions of the past.

First, let me say, that I do not see any adequate evidence for the existence of anything that can accurately be described as the business cycle. Like the rock strata at the bottom of the ocean or beneath a glacier the economic structure may respond to a certain rhythm but the idea seems to depend on things neither seen nor to be seen, and is, therefore, something in which subjectively you may have faith but in which objectively you have no basis satisfactory to the scientist. What may be called by some people, for convenience and despite all the distortions which it suffers by reason of the impact of factors which are not strictly economic, the business cycle, has been affected much and often by politics. By politics I do not mean so much those internal and expressive of the conflicts of parties, but rather those arising from international relations and reflecting the antagonisms of philosophies and programs of economic and social organization.

This present depression, which you have experienced only over the comparatively short period of four years and which has afflicted Britain for thirteen years, seems to me to be comparable less with those to which you have been led to give the name "the business cycle" than with the two great Amsterdam crises of 1768 and 1772-78, the post-war distresses from 1814 to 1847 and the long drawn out depression that ensued upon the European and American wars of the sixties. These resulted from exhaustion caused by heavy drains on money and such man-power as was then involved in trade and its more or less interdependent economies of manufacture and food production.

Wars inject into the economic and, particularly, into the financial systems vast claims on wealth not yet created and the amount of which in forms capable of being moved over from the enjoyment of debtor to creditor is generally most inaccurately estimated. Till such state levies on income—past, present, and future—can be worked out of the system or reduced again to management proportions there can be no lasting recovery or, as I should prefer to call it, permanent readjustment. But their scaling down today, as in the experience of the past, may cause the most profound disturbances in countries such as France and the United States where rainbow gold has been included in the national balance sheet in the guise of quite fictional credits.

Wars occasion great shifts in economic activity other than financial in its manifestation, but I do not think these are really so serious as the fictions which require to be banished from that subjective invention called credit. The idea of "the maldistribution of gold" of which we heard so much a few years ago was never one of universal application or generation. It was held most naturally and most strongly in Vienna, Berlin, and London. In the first two it meant really the transfer of gold to Paris, and in the last named

it reflected the disgruntlement at the shifting of credit-power to Paris and to New York. Gold is always maldistributed when it passes from ourselves to others. The inconveniences attached to the redistribution of the credit basis inherent in gold holdings arose from something altogether different but none the less real. Customary as it is all over the world to flatter myself and my countrymen into the belief that our mastery of money is something possessed by Englishmen from the beginning, the truth is that we learned it from the Dutch. It has been with us for about a hundred years. Before that, scrutiny of the parliamentary papers and the pamphlet literature of the time of Ricardo and the Economic Club will make evident that it was something which we had not then definitely acquired.

The ruin of Hamburg in 1768 and of Amsterdam in the successive crises from 1768 to 1796, as of Paris by the extraction, in eight months, of \$600,000,000 following upon the war of 1870-71, redistributed credit-power and placed it in the hands of men who were not experienced in its management. London, Vienna, and Berlin had to learn, and it took them anything up to a generation or even a half century to master the art. So, after the redistribution of credit-power between 1914 and 1922, Paris and New York have failed to give satisfaction. But they can learn. Till they do, we shall not escape from our difficulties.

The crisis which has developed since 1929 has been affected, also, by great changes in the technique of production and transportation. So were the great crises of the forties, the fifties, and the eighties of the nineteenth century, and the new problems in financing enterprise which were presented gave rise to such ramshackle improvisations as the discount companies of the sixties and the investment trusts of the eighties in London. Other decades have had their Insull, their Kreuger, and their Hatry, in George Hudson, in Jay Gould, and in Hooley—not to forget Dr. Strousberg. Such products of inexperience and of facilitated fraud are unavoidable in periods of attempted adjustment to new needs and, when this has to be undertaken simultaneously with the disturbances consequent on the mighty and seldom well-managed financial operations of governments, experience teaches that we must expect the evil consequences to be of somewhat lengthy duration.

One aspect of the present long-term depression setting in after the World War is especially serious and without precedent. This is the tendency of credits and their supporting basis of gold to move restlessly and according to no rhythm but the panic and regained confidence of their controllers from one money market to another. This was the main cause of the bloated expansion of the United States prosperity of the twenties. Floating balances have become the most serious problem of our time.

Since the development of exchange and the rise of capitalism made possible by the inflow of precious metals into Western Europe in the sixteenth century, money has had four main bases. First, there was silver. The falling off in the production of this in the middle of the seventeenth century led not so directly to crises in commerce as in the relations of governments, each of them pressed for the sinews of war, and "for purchasing power"—that obsession of kings, courtiers, and the economists of a new idle class.

Second, there was gold. The exhaustion of the mines of Brasil as inevitably swung the greatest traders of the West, to wit, the Dutch, from the side of England as, a century ago, it drove them from that of France. Third, there was fiat money, the note issues of the Bank of England, the Banque de France, and their many copyists throughout Europe and in Philadelphia in the nineteenth century. Since this was always tending to be "deflated" both by the proper caution of national bankers tormented by a chronic famine of gold and silver and by the improper action of governments and their agents, the treasuries and national banks, operating in the interests of the creditor classes, the debtor elements and those intermediate between them evolved a fourth instrument dependent for its value on the faith which capitalists could feel in their fellows. Quite naturally, it found its outstanding exponents in the great and interrelated Quaker families of Norwich, London, and Philadelphia.

Following on the fall of the bill-discounting houses gradually there developed the circulation of the paper of the new joint stock banks of England, the similar institutions of France and Germany, and the national chartered banks of the United States. For two generations, gold, silver, and fiat money backed by the credit of the state have become relatively less and less important in the economy of the world. Credit has come to be the most important of all the monetary media but credit means confidence.

Since the Great War, confidence has been at a heavy discount and therefore credit has been subject to variations in its real value such as have made the correct functioning of capitalism utterly impracticable. High wages and social services to supplement the minimum subsistence needs of the workers in industry and commerce have come to be the recognised "dane-geld" or alternative to social unrest that would stop the processes of producing profit adequate to meet both interest and dividend. Revolutions and rumors of wars have killed all confidence in large parts of the now wide-open world market of capitalism.

Confidence is the need of the hour. Confidence is something which evades the generators and managers of credit in all countries. Not silver and not gold and not the capacity of the printing presses of London and Washington to transform news-print and ink into "money" are lacking, but the reasonable anticipation of making and keeping that profit which gives the sole *raison d'être* for the existence of the present economic system. Indeed, might we say, "No confidence, no credit and no capitalism!"

DOUGLAS COPLAND.—Australian depressions are the product of one or a combination of three influences: changes in export prices, changes in investment, and seasonal variations. All minor influences operating to cause variations in economic prosperity may be ignored in the face of these three powerful forces. It should be observed that to a considerable extent, they are forces over which Australia has little control. It is true that she can vary volume of investment, but her economy is such that high export prices are usually associated with prosperous conditions throughout the world, and therefore, with an export of capital from the great international centers. Australia might resist the inflowing tide of capital, and to this extent she

would be in a position to moderate the boom associated with world prosperity and thus to mitigate the disturbances of depressions upon her own economy. Usually, however, Australia in common with other borrowing countries, has actively sought loans during good times without any thought of planning public investment with a view to evening out the fluctuations in business prosperity. In the past thirty years in particular, the borrowing habit has been much overdeveloped and the burden of fixed interest bearing debt has grown with alarming rapidity. It is well to remember also that in an agricultural country, the burden of private fixed interest bearing debt, in the form of mortgages, is always substantial. As the economy of the country develops, and governmental borrowing increases, the fixed interest bearing debt becomes an embarrassment in a period of economic distress.

Before examining the traditional method adopted by Australia to overcome depressions and promote recovery, the effect of changes in the seasonal conditions on the policy of financial institutions must be considered. We may recognise three types of financial institutions: stock and station agencies, banks, and insurance companies.

The first of these, by the very nature of their operations, have long since acquired the habit of "carrying" producers during unfavorable seasons. It is a good habit for a country, subject to variations in prosperity not only because of the weather but also because of changes in prices and world economic conditions.

Fortunately the habit has spread in recent years to all other financial institutions. The banks in the 1898 crisis were caught by heavy commitments in the form of short-term obligations to overseas, mainly British, depositors. Since that time they have avoided these obligations, and on the contrary have built up very substantial liquid reserves in the form of gold and sterling assets. They are, therefore, usually in a position to meet a sudden disorder in the balance of payments and to assist governments to meet national obligations. Though they restrict advances in such times, they do not undertake a drastic deflation policy involving the sale of the diminishing assets of their clients. Such deflation is not usually now a method of meeting a crisis in Australia. The insurance companies have also adopted the attitude that mortgagors must be nursed during a period of adversity and that no hasty deflation of credit should be attempted. We may say in fact that the Australian financial structure is able to apply to a primary producing country Bagehot's maxim of credit expansion in a crisis. This has not always been the case because at some periods, as for example in 1898, the institutions themselves were in a weak condition to meet a crisis.

We must distinguish between deflation of credit and deflation of costs. There has always been a considerable deflation of costs in Australia during the crisis. This has been applied especially to wages and governmental costs; and it has also extended over a period to debts. These have been written down gradually to meet the impaired capacity of debtors to pay. There are plenty of examples of all of these measures of deflation. For instance, in 1855, after the great gold boom, wages were very drastically reduced and exports encouraged. Similarly, after 1890, wages fell substantially. Accord-

ing to one estimate (Wood, *Borrowing and Business in Australia*) nominal wages fell from 944 in 1890 to 707 in 1896 (base 1,000 in 1896). It is well known that at the same time drastic economies were made in the budgets and ultimately budget equilibrium was restored.

This has led some people to the conclusion that a policy of deflation is in itself sufficient to enable a country, like Australia, to meet a depression and that such a policy might have been employed without other aids in the recent depression. Up to the recent depression, there was no general belief in Australia in currency depreciation as a means of easing the burden of the depression, restoring equilibrium in the price structure, and spreading the loss of national income. Similarly, there has been no belief in the doctrine of purchasing power, which has become somewhat important in the United States. The argument has been all along—deflate costs, balance the budget, provide the minimum relief for unemployment, and let nature take her course in the restoration of investment. Experience seems to have justified this belief, but experience is a fickle guide if people do not clearly examine the nature of the experience upon which they base their conclusions.

Let us look for a minute at some special features of the experience Australia had up to 1929. Of outstanding importance is the fact that price changes were never very violent compared with the experience of the recent crisis. Take the worst period in Australian export prices; namely, the period from 1875 to 1890. We find here that there was a break of about one-sixth in the export prices during the years 1875 to 1877. This, however, was balanced by an increase in output. Prices were then stable until about 1894 when they fell again by some 16 per cent. Again they remained relatively stable for some years. Between 1890 and 1898, however, a break of 80 per cent occurred and prices reached the low level from which they did not recover until the opening years of the present century. We have had, however, a period of nearly twenty years involving a fall of 50 per cent in the export price level. This in itself is serious enough, but in the recent crisis, the fall of 50 per cent occurred not in eighteen years but in eighteen months. This is the first and most vital difference between the recent crisis and past experience, but there are other differences. World dependence on international trade in raw materials and food stuffs was the outstanding feature of world economy, even up to 1929 and certainly up to 1918. There was faith in the development of new countries. International capital was still actively seeking investment overseas, and, in particular, the British Dominions co-operated with the London money market in a developmental policy involving imports of both capital and labor. In a crisis this policy was temporarily suspended, but immediately the crisis passed, it was renewed. There is little prospect of such a renewal after the present depression.

Severe depressions in the past have been followed by some new development in the exploitation of the country's resources, or a rapid rise in the world price level. For instance, after 1858 and 1898 world prices in general tended upwards. After 1855 there was the development towards closer settlement. Again after 1878 there was the great railway development involving heavy overseas borrowing. After 1898 we had remarkable experiments in wheat

farming on dry areas with a consequent expansion of production and increase in yields. At the same time, there was the development of refrigeration. These examples could be multiplied, but they all show that some new and important development took place and stimulated the renewal of investment. This is invariably the means to recovery. It is true that the deflation of costs assists in the restoration of investment but we must not be misled by assuming that the deflation is carried out by one country while others have stable costs. In these circumstances clearly the deflation will stimulate investment in the country in question; but if the deflation is part of a world-wide movement, there is little prospect of investment being restored substantially in any one country. Of more importance than the deflation of costs was the movement of world prices and the openings for new investment in Australia. We must recognize, however, that where the crisis is not too severe or sudden, deflation will not damage the credit structure but rather strengthen it. If it is pursued more vigorously in one country, it may stimulate investment in that country.

The crisis of 1930-33 was vastly different from any previous depression in three respects: in severity and suddenness, its comprehensive grip on the whole structure, and the burden of fixed interest bearing debt.

Deflation alone was no solution of the problem. We may notice the following results of deflation alone: national income would have fallen from £650 m. to at least £800 m.; wages would have fallen by at least 50 per cent; fixed charges would have become an intolerable burden; the assets of financial institutions would have collapsed in value with consequent collapsing of the credit structure; and budget balance would have become an impossibility. Deflation would, therefore, have completely failed to solve the problem.

The Australian economists argued that a policy of recovery should aim at the following objectives: keep the monetary loss of income at a minimum; spread the loss of income equitably and rapidly over all classes of the community; preserve the credit structure by conserving the assets of financial institutions; prevent the fall in prices from going too far; provide relief for unemployment; and promote a restoration of investment by reducing the rate of interest as low as possible.

They sought to attain these objectives by the following measures: comprehensive and constructive deflation involving an all-round production in all incomes including incomes from interest and rents; a depreciation of the currency sufficient to restore the balance of payments and to maintain export prices at a reasonable level in local currency; an expansion of central bank credit for the purpose of financing budget deficits and public works, and for improving the cash position of the banks and reducing the rate of interest; an expansion of export production to make up the loss of income caused by the fall in prices and the stoppage of overseas borrowing.

This is a comprehensive policy involving a rapid adjustment of the whole economy to the new and distressing conditions caused by the world depression. Up to the present, the results have exceeded expectations, but complete recovery still awaits a further increase in investment.

PUBLIC UTILITIES IN THE DEPRESSION

MARTIN G. GLAESER, *Chairman*

The general subject of the round table was public utilities in the depression, and the discussion was focused about the two specific topics of rate-making and public utility credit. The main body of the discussion was presented by E. W. Morehouse, of the Wisconsin Public Service Commission, and by Professor Marcus Whitman, of the University of Alabama. The more formal part of the discussion was participated in by Professors Julian S. Duncan, St. John's College; Paul J. Raver, Northwestern University; and L. R. Nash, Vice-President, Stone and Webster Engineering Corporation. There was some informal discussion from the floor.

E. W. MOREHOUSE.—Rate-making in the depression has to be discussed in the light of the development of utility industries before the depression, and the economic position of the utilities during the depression.

The development of the utility industries in the twenties was characterized by market expansion, technological improvements, and consolidations. Centralized production of electricity and the broadening of markets by the building of high tension transmission lines were the most important conditions affecting the electric light and power industry. The holding company was used as the important financial vehicle for effecting large organizations. To finance expansion and consolidation, funds were advanced by holding companies or were directly borrowed from the public, with the result that utility companies entered the depression with capital structures burdened with debt.

In the electric field, the development of uniform rate areas, lower power rates incident to too aggressive acquisition of power loads, promotional rate forms, and experimentation with rural rates were significant trends. Gas rates exhibited similar tendencies to a lesser degree. Telephone rates for local exchange service moved upward while toll rates tended to go down. Water rates remained generally untouched and electric railways faced vanishing markets and the need for experimental rates.

Utilities during the depression operated on two price levels. Their fixed charges and many other elements of cost were determined largely at boom era price levels, whereas revenues shrank as a result of a drastic decrease in the incomes of the purchasers of utility service. This situation demanded cuts in rates, within the limits of largely inflexible fixed charges. Power markets were revealed to be the most elastic and residential the most stable. Promotional rate schedules intended to increase the use of electricity and decrease the cost per kilowatt hour were found somewhat unsatisfactory from the customer's point of view. An individual customer seeking to cut his expenses discovered that economy in electric consumption was not rewarded by a proportional decrease in the price per kilowatt hour due to the existence of high initial blocks in the residential rates and demand charges or ~~minimum~~ bills in the power rates; in fact, average rates often increased.

In the period 1930 to 1938, the revenues of the utilities fell and common stock and some preferred stock dividends were passed, although greater

efforts were made to pay customer preferred stock dividends than common stock dividends in order to preserve good public relations and maintain credit. At the same time, the utilities were faced with the necessity of making rate changes in an effort to relieve discontent, to stop the loss of load, and in some cases to retrieve revenues.

Conventional legal procedures in rate-making broke down in the depression. They proved cumbersome, expensive, and time-consuming when speedy action was demanded by customers and costly litigation was avoided by utilities. To make findings of a rate-base and a rate of return required more time than an emergency situation permitted in view of inadequate, rapidly changing price and labor cost data. With such valuation difficulties, the question of a determination of used and useful property was complicated by the fact that plant capacity existed far in excess of needs. A rough check of N.E.L.A. figures for the electric industry as a whole indicated a decline in capacity factor from 86.2 per cent in 1929 to 26.3 per cent in 1938. Book figures were rendered unreliable because of past write-ups and inadequate records, or if plant expansion had occurred mainly in the six-year prosperity era before 1929, book cost reflected inflated values. Use of book costs did not do away with the question of idle property no longer used and useful.

In view of these barriers to the prompt disposal of rate matters, three substitute methods were evolved. Informal adjustments of rate schedules were made even when formal rate cases were pending. "Consent orders"—i.e., formal orders of the Commission adjusting rates after conference or bargaining with the utilities concerned—were used most extensively, in Wisconsin at least, in the case of telephone rates affecting rural or small town communities. These orders were usually not permanent in effect and authority for their issuance was based on a statute covering an emergency situation. Interlocutory or emergency orders on the Commission's own motion have been issued in a few states under the authority of statutes providing in extraordinary times a more summary procedure than is followed in conventional rate proceedings.

Rate structures have not notably improved during the depression. The establishment of uniform rate areas for individual utilities ceased due both to a halt in the consolidation movement and the reluctance of utilities to suffer losses in revenues merely for the sake of uniformity.

Depression rate-making has consisted primarily of rate nibbling. Rate changes were made to silence rate agitation, sacrifice as little revenue as possible, and preserve as much net income for stockholders as possible. So-called scientific principles were largely ignored. This was shown in a quick survey of electric rate changes between 1930 and 1938 in ninety of the largest cities in the United States. Although a few general trends were observed, the chief impression was that rate changes showed mixed tendencies. New water-heating schedules, usually optional to lighting schedules, and sometimes combined with rates covering use of other appliances, were filed. Commercial rate schedules showed little distinctive change, except for the inclusion of larger amounts of lighting with power rates. A reduction in both demand and energy charges, a liberalizing of availability clauses and determination

of demand provisions, and an increase in optional rates and special service classifications characterized the alterations in power rates. Because rate changes were made for superficial reasons, neglectful of certain well-established principles, these selective reductions based on expediency portend future trouble and tend to show the hollowness of many pre-depression pretensions to so-called scientific rate-making.

Although rate revisions were ruled by expediency rather than principle during the depression, a changed emphasis in rate-making may be witnessed. Many people regarded cost allocations as the whole of rate-making. Recently there has been a growing realization that cost allocations are not wholly trustworthy because they are founded on several arbitrary assumptions. Such skeptics have swung to the other extreme of treating rate-making as wholly a pricing problem to encourage an ever-widening distribution of the benefits from utility service. This involved use of estimates of competitive costs and experiments with consumers' demand curves. The reasonable position is between these two poles of thought. Periodic cost analyses are necessary to check long-time rate policies and class rate differentials. But in designing specific rates, pricing the service attractively to desirable loads is very important in developing the market to a lower point on the declining cost curve.

With unused capacity, more thought should be given to attaching those loads which have the most stability, increase the class diversity factor, and improve class and system load factors. The attitude prevailing among some utilities to sell kilowatt hours indiscriminately without regard to such factors is reprehensible, for, over a long period of time, such a practice will not result in more economical operations and lower costs.

In specific reference to gas rates, the depression era has noted a wider use of fixed charge rates, the development of class rates, and the substitution of therm rates for cubic foot rates. Telephone rates have remained rather inflexible, except in rural areas and small towns served by independent telephone companies.

In conclusion, depression experience has taught us five lessons: The encouragement of stable loads best protects the utility's interests and suggests the desirability of rate adjustments to good residential users; cost analyses are useful as a general guide and check upon class rate differentials, but pricing the service attractively to desirable loads must not be overlooked; a reduction in debt should be made in order to lighten the burden of fixed costs; the use of short cut methods of procedure in rate cases is essential and to shorten conventional legal procedure, the establishment of a continuous inventory record and continuous system of cost indexes and the use of bargaining and conference methods recommend themselves; the notion that rate-making is exclusively a function of management must be abandoned; instead, rate-making should be a joint function of management and the regulating commissions if regard is to be given to the economical development of utility markets.

MARCUS WHITMAN.—It is well known that the lion's share of public utility service offered by private corporations in the United States is rendered by operating units controlled by companies which entirely or in part are hold-

ing corporations. Holding company groups are also the largest users of public utility credit. In the year 1929 over 98½ per cent of all domestic public utility securities issued were those of companies belonging to holding company groups. Consequently it seems best to discuss the subject of public utility credit from the point of view of the holding company system or "group," the term to be used in this discussion. For present purposes a typical utility "group" consists of (1) one or more operating or property owning companies of various types and functions, (2) a holding company capping the corporate pyramid, (3) subsidiary holding companies in some cases, (4) affiliated investment or securities companies in some instances.

Groups as a whole may be classified as follows:

1. Older groups sponsored by utility operators and by the manufacturers of electric and gas generating and distribution equipment. Twenty-five groups are included in this category. The largest and most stable holding company systems in the country are represented. As a whole these groups are chiefly engaged in electric light and power service.

2. Newer groups sponsored by operating or promoting interests. Thirty-one groups fall in this category. They tend to be smaller than the early operator groups. Many of them reflect the influence of financial promoters. They have not restricted their activities to the fields of electric and artificial gas service. Many of these groups include natural gas and small telephone properties.

3. Groups sponsored by professional management organizations. Seventeen active groups belong in this class. In recent years certain management firms were forced to form holding companies to acquire control of their clients to prevent their being acquired by promoters at a time of unusually favorable conditions in the capital market. The management organizations have largely confined their grouping efforts to the electric service field. The operating units in these groups usually consist of service systems of sufficient size and physical unity to secure the benefits of large scale operation.

4. Groups sponsored by investment banking and financial interests. Thirty-six groups may be placed in this category. In general these groups are much smaller than those classified in the other categories. The operating constituents of these groups include a large number of small natural gas, water, and telephone properties. In other words some investment bankers specialized in the service fields deemed to be "marginal" by experienced developers of utility systems. In many cases the promoters of these groups were chiefly interested in profiting from the distribution of the securities of the companies in the group, and usually they also hoped to sell their interests to other groups at a profit. The collapse of the capital markets within the last few years prevented many such anticipated sales.

During the depression the credit position of utility groups has been affected by the various influences affecting business credit as a whole, the movement for greater public control, and the financial and managerial characteristics of groups as indicated by depression experience.

The chief purpose of this discussion is to set forth the special influences within the utility industry which tend to affect its business reputation and

credit standing. Consequently, little space will be devoted to a discussion of the first two factors. So many bonds of good quality may now be purchased below par that there can be little investor interest in new issues. The most important influence necessary to lead the way to a gradual rehabilitation of the market for new issues is the prospect of a substantial increase in business earnings. Although there may be little demand for large investments of new capital in the utility business in the next few years, it will be necessary for a number of groups to engage in some refinancing.

The movement for greater control is also an important factor influencing utility credit. This movement has indirect as well as direct aspects. Recently a number of cities and communities have manifested an interest in municipal ownership. The Public Works Administration appears willing to give financial encouragement to public ownership. The Tennessee Valley Authority is attempting to perfect its service rate "yardstick." These attitudes taken together have some effectiveness as indirect regulation. In one sense they may be considered as threats designed to secure rate reductions. Greater direct control may result from the present urge for new federal legislation, especially concerned with regulating the activities of holding companies.

After all the type and extent of control of utilities will undoubtedly be determined by the nature and seriousness of the undesirable characteristics and practices of utility groups. In what way has depression experience strengthened or weakened faith in the utility group as a device for managing utilities? It has directed attention to the following significant matters: First, the conservatism or lack of it in the financial structures of groups. An equity participation ratio may be used as one type of measuring device. This ratio indicates the percentage of total income of the group that is available for the controlling equity after all other claims upon income are satisfied, including an ample allowance for depreciation. Upon the basis of 1932 income reports, the depression has virtually destroyed the earning power of many holding company equities. This in effect means that there is no real equity protection for the other securities of the group. By way of summary, a share of earnings for the controlling stock equity is available only in the case of fourteen of the twenty-five older groups sponsored by operating and industrial interests, eleven of the thirty-one newer groups sponsored by operating interests, six of the seventeen groups sponsored by engineering and management interests, and six of the thirty-six groups sponsored by investment banking and financial interests. However, the older and newer operating groups that are still earning a substantial equity participation far outweigh in financial importance those which earn nothing for the controlling equity. The groups, large or small, that have grown most rapidly had as a rule the poorest equity participation showing in 1929 and tended to fare badly during the depression period. Groups that relied upon "other income" to support the equity have suffered during the last two or three years. Groups that have emphasized industrial service have also had to face the prospect of disappearing equity earnings. Groups that serve substantial urban areas and hence have concentrated operating units seem to be able to resist the depression better than groups whose operating properties are developed on an extensive basis.

Second, defaults and receiverships. At the present time twenty of a hundred and nine top holding companies are now in receivership. Six groups have already been reorganized with or without receiverships. Seven other companies have defaulted in the payment of bond interest. One older operating group, four newer operating groups, one management company group and fourteen banker sponsored groups are in receivership.

The fundamental causes of these receiverships were rapid and often excessive expansion accompanied by financial pyramiding. Immediate causes included (a) the maturity of short-term debt at a time when the condition of the securities market would not permit new financing, (b) the maturity of notes payable, including notes to banks, (c) a rapid and severe decline in gross revenue making impossible the payment of all bond interest. Certain contributing factors have either hastened the coming of receiverships or influenced their financial seriousness. These are: (a) the payment of excessive purchase prices for properties, (b) the recent decline in the marketability of securities, (c) the drying up of sources of special profit, i.e., the trading and selling of securities and properties to parties interested in grouping activities, (d) the stoppage of dividends from subsidiaries and returns from other investments, (e) the inability of subsidiaries to repay advances from the holding company, (f) the impounding of funds in frozen investments in industries, newspapers, and other enterprises.

Third, the passing of preferred dividends. During the past three years twenty-five of the one hundred and nine holding companies under discussion have passed dividends upon some or all classes of preferred stock. This figure, of course, excludes companies in receivership and companies having bonds in default. Ten of the twenty-five older operating groups, six of the seventeen management company groups, three of the thirty-one newer operator groups, and eight of the thirty-six groups sponsored by financial interests have passed preferred dividends. In considering the foregoing, it is well to remember that the latter two classes of groups include twenty-eight cases of receivership, bond defaults, and reorganizations whereas the other two classes include only five such cases of financial difficulty.

Fourth, financial practices and policies. In recent years a more widespread knowledge of certain financial practices of groups has had a very definite effect upon their business reputations. Many of these practices appear to be lawful, but investors deem them unsound and unfair. Many groups gave too much weight to anticipated future profits in planning the financial structures of constituent holding companies. A number of holding companies sold securities, especially preferred stock, to customers and investors as long as a market existed. This was done despite the fact that in certain instances the proceeds of these issues were being used in part to pay interest and dividends. In some cases holding company bond collateral was legally juggled to the disadvantage of the bondholders. A number of holding companies, urged on by a desire to expand rapidly, followed the practice of pledging their most valuable assets as security for bank loans. As a result their preferred stockholders, and sometimes the debenture holders, were subjected to excessive risks.

Fifth, recent commission experiences with group financial management.

Certain characteristics of group management policy and practice affecting utility credit are revealed in the experiences of state public service commissions during the depression period. Some of these policies not only undermine public faith in group management and hence injure holding company credit, but they also tend directly or indirectly to injure the credit of local operating companies. A few commissions can prevent these practices. Others are seeking the necessary legislative authority.

These policies and practices fall into three general classes: (a) unwarranted payment of dividends by operating companies to holding companies, (b) unwarranted extension of credit by operating companies to holding companies, (c) management policies inimical to the financial independence and strength of the operating units.

A few of the policies in the third classification may be summarized briefly as follows: Some groups followed the policy of interposing holding company management upon newly acquired units in such a manner that the operating expenses of the latter were materially increased. Others followed the policy of charging to operating expense the cost of a campaign for selling the stock of holding companies and other companies in the group.

Occasionally, a holding company completely financed an operating company through advances upon open account. In the long run this practice injures the credit and the business reputation of the local operating company, for it may be considered as an attempt to circumvent state regulation of security issues. Another policy occasioning commission comment is the tendency of certain groups to reduce the operating companies to mere bookkeeping devices. This may sometimes be good business practice; but it does make commissions feel that effective regulation is a matter of increasing difficulty.

My conclusions are: Utility credit is not, after all, a matter determined entirely by the condition of the individual company or group. Individual groups are judged in the light of the collective reputation of the entire industry and this reputation can be more influenced by the mistakes of a few groups than by the constructive activity of the majority.

In the past utilities have enjoyed excessive credit. Credit was put to abnormal uses in some cases. The great users of credit during this period were the groups and super-groups.

Interconnection and large-scale production are normal economic developments especially in the electric industry. However, grouping as it has manifested itself in recent years, is largely a financial phenomenon. Grave doubts exist as to whether financial consolidations are socially necessary.

Grouping may be justified from the investors' point of view solely if it makes possible the employment of the insurance principle of diversifying risks to obtain investment security. In practice there has been a tendency in some cases to neglect this principle and to confuse it with or subordinate it to the practice of pyramiding. A surprising number of the larger and better holding companies reflect financial pyramiding.

It should be recognized that the same general plan of financing cannot be used for all groups. Differences with respect to such matters as the stability of earnings and the elasticity of expenses should be given especial emphasis in financial planning for holding companies.

It should be recognized that a financial plan which is built upon the premise of securing for the promoters all of the economies of large-scale management is dangerous and unwise and not politically practical in the long run. From this point of view the capitalization of all profits arising out of service contracts by the holding company is questionable policy.

A clear distinction should be drawn between the quality and permanence of certain items of "other income" on the one hand and ordinary operating revenue on the other hand. The former ought not to be capitalized by holding companies.

In the interests of the security holders of holding companies there should be more effective restrictions upon the pledging of holding company assets as collateral for bank loans. For instance, it is fundamentally inconsistent to attract investors to the preferred stock of a holding company and then to pledge all of the assets of the latter to finance an acquisition that may often be a very speculative venture.

It should be recognized, from a public relations point of view, that preferred stock sold to customers should be protected by a substantial common stock equity. This means that customers ownership campaigns may well be limited to the preferred stocks of operating companies. Even then it is well to recognize that a preferred stock will never have the safety and stability which a customer owner believes it should have as long as bonds occupy a place of any prominence in the financial structure of the company.

There seems to be some objection to the selling of holding company preferred stocks to customers and small investors. Pyramiding practices have made many such stocks very insecure. Also it has been contended that holding company preferred stock holders are sought as allies to assist the group in resisting the lowering of service charges made by operating company to holding company.

Again, in case of reorganization, those in control can disregard preferred stockholders' interests of holding companies much more easily than the preferred stocks of operating companies subject to commission regulation.

The most effective method of self help that the industry can employ is the encouragement of a realistic attitude toward regulation. The great majority of substantial groups have this attitude, but they are suffering from the uncompromising views and practices of a minority. Attempts on the part of a few groups to avoid state regulation and to divorce the interests of the parent and operating companies are largely responsible for the present drive for federal control.

PAUL J. RAYER.—Dr. Morehouse has given us one of the most interesting and helpful discussions of rate-making that I have heard recently. Indeed, he need not have confined its title to rate-making in the depression for it is sufficiently broad in its scope to cover conditions and uncover problems which will require consideration for some time to come.

Dr. Morehouse indicates that in Wisconsin the differentials between class rates have been narrowed between 1929 and 1932 when computed on the average revenue per kilowatt hour sold. As he points out, his data probably reflect a more drastic curtailment of consumption in the lower blocks of power and commercial users than in the lower blocks of domestic consump-

tion thus bringing into sharper relief the significance of the fixed charge component in the former two classes.

Some preliminary results of a nation-wide study of the changes in class rate differentials from 1980 to the middle of 1988 may be of interest. These data are computed from the N.E.L.A. and *Edison Electric Institute Rate Books* for 1980 and 1988. The results are now available for all towns over twenty thousand population in twelve states. The states with the number of towns in each are as follows: South Dakota, one; Tennessee, five; Utah, two; Vermont, one; Virginia, seven; Washington, four; West Virginia, seven; Wisconsin, fifteen; Minnesota, three; Mississippi, three; Missouri, eight; and New Jersey, thirty-two.

By comparing the average rate per kw. hr. for definite amounts of consumption in the residential, commercial, and industrial classes, the unequal effect of the depression on consumption in each class is eliminated and the effect of rate reductions on each class of consumer is more accurately disclosed. This was done in the above study for three consumption groups—low, medium, and high. The low consumption group is 25 kw. hrs. per month for residential, 540 kw. hrs. per month for commercial, and 7200 kw. hrs. per month for industrial. The medium consumption group is 50 kw. hrs. per month for residential, 1440 kw. hrs. per month for commercial, and 48,600 kw. hrs. per month for industrial. The high consumption group is 100 kw. hrs. per month for residential, 4500 kw. hrs. per month for commercial, and 482,000 kw. hrs. per month for industrial. These consumers were assumed to be typical of a certain range of conditions which we do not need to detail here.

The average results for the eighty-eight towns over twenty-thousand population in the above twelve states follow:

	Ratio of Average Commercial Power Rates to the Average Residential Rate	
	1980	1988
1. <i>Low Consumption Group</i>		
Commercial lighting	1:1.26	1:1.28
Industrial power	1:2.84	1:2.88
2. <i>Medium Consumption Group</i>		
Commercial lighting	1:1.81	1:1.89
Industrial power	1:3.83	1:3.94
3. <i>High Consumption Group</i>		
Commercial lighting	1:1.41	1:1.50
Industrial power	1:8.81	1:8.62

On the basis of these preliminary figures it would seem that the small domestic user did not fare so well as the small commercial or small power customer in the rate reductions from 1980 to 1988 since he paid 1.26 times the commercial average rate in 1980 and 1.28 times that average in 1988. Likewise, he paid 2.84 times the average power rate in 1980 and 2.88 times that rate in 1988. However, domestic consumers in the medium and high consumption groups apparently received relatively more consideration in rate reductions than commercial and power customers in the medium and high consumption classes. For example, domestic consumers using 100 kw. hrs. per month in 1980 paid an average rate 8.81 times the average rate for power customers using 482,000 kw. hrs. per month, but in 1988 they paid only 8.62 times as much based on the same amounts of consumption.

If we single out the five cities of more than twenty-thousand population in Tennessee, which are included in the above eighty-eight, we get results still more favorable to the domestic consumers:

Comparison of Rate Reductions in Tennessee Commercial and Power Rates to the Average Residential Rate		
	1930	1933
1. <i>Low Consumption Group</i>		
Commercial lighting	1:1.18	1:1.17
Industrial power	1:2.82	1:2.56
2. <i>Medium Consumption Group</i>		
Commercial lighting	1:1.19	1:1.34
Industrial power	1:4.07	1:3.84
3. <i>High Consumption Group</i>		
Commercial lighting	1:1.86	1:1.81
Industrial power	1:4.57	1:4.00

Here is a definite narrowing of the spread between domestic and other classes of consumption for small as well as large consumers.

The question naturally arises: Is the potential competition of the Tennessee Valley Authority a factor in the more favorable consideration given to domestic consumers—especially the small domestic consumers—as compared to commercial and power consumers in these five cities in Tennessee?

Such a conclusion could hardly be drawn if the figures cited here were the result of changes in rates taking place prior to the creation of the T.V.A. However, four out of the five cities noted here had changes in the residential rates in the September, 1933, Supplement to the 1933 *Rate Book*. In addition, the fifth city, Memphis, secured a rate reduction for residential customers about two weeks ago. Reductions of some \$360,000 per year for residential customers were secured by informal negotiation between the company, the city, and the state commission. This reduction would tend to narrow the spread in our data for Tennessee still more than shown above. These facts quite definitely reflect the potential competition of the T.V.A. in narrowing this spread.

Until this study is completed for the country as a whole and can be analyzed more critically in the different geographic sections, it will be impossible to show conclusively what classes of customers, if any, are being favored over others in rate reductions. The above data are presented here, however, as indicating a partial substantiation of the findings by Dr. Morehouse in Wisconsin on an entirely different basis of comparison.

L. R. NASH.—Most of the widespread agitation for reduction in public utility rates, particularly those of electric power companies with which this discussion deals, originates in one or more of the following causes: an assumed lower cost of service; reduction in other prices and the cost of living; propriety of sharing in the results of depression; reduced value of services; and unclassified political causes.

As a matter of fact there has been no substantial decrease in the cost of electric service other than for minor items of supplies and labor. Certain important items, including taxes, are substantially higher. Although wholesale all-commodity prices have receded to about pre-war levels, utility con-

struction costs are still about 70 per cent higher. At least 50 per cent of the average cost of electric service relates to charges on fixed capital.

While cost of living is still about 25 per cent higher than pre-war, the average cost of domestic electric service is about 87 per cent lower.

There is public demand that utility rates vary with business conditions as do other prices. Is it socially desirable that such fluctuations should occur? Regulatory policies developed during the past twenty-five years have generally held that they should not. This policy was maintained during the 1921 depression but less completely during the present one. The reasons for this policy involve the important factor of utility credit which must be such that funds can be obtained for service extensions and expansions demanded by customers. Apparently the commissions have believed that stable rates and sustained credit were more to the advantage of customers than unstable rates, the variations in which would affect the cost of living of the average family by a minor fraction of 1 per cent. Obviously public utility rates cannot be adjusted to meet customers' ability to pay any more than can prices of commodities generally. Value of service is a very indefinite factor.

There is no national authority over utility rates. Utility national associations advise as to rate forms but not levels and there has until recent years been a definite tendency toward standardization. This tendency has been upset during the present depression by political rather than economic or technical influences.

The conference method of adjusting utility rates, at least temporarily during a depression, yields satisfactory results in the absence of political influences. Perpetual inventories would be helpful in rate cases, but the upkeep cost might amount to more than the occasional preparation required for formal cases.

The assessment of regulatory costs upon utilities results in an assessment of their customers. They would approve this when rates are reduced, but would be less pleased with paying for the cost of increases which may some time be in order.

Regardless of other reasons for rate readjustments, the fact that facilities installed with good business judgment are temporarily idle should not be given consideration. If such facilities were excluded from a rate base, utility credit would be seriously impaired.

A stabilizing reserve which would permit rate adjustments without interfering with utility credit is theoretically practicable but such a reserve cannot be drawn up until it has been created and, as a practical matter, rate reductions which such a reserve permits are not readily eliminated when the need therefor disappears.

IMPERFECT COMPETITION

JOSEPH A. SCHUMPETER, *Chairman*

THEODORE O. YNTEMA.—What I have to say is a digest of a rather lengthy, technical article which I hope later to publish in full.

The conditions for equilibrium in an industry are these:

1. The prospects of profits must not be so great as to attract additional firms into the industry or so small as to cause the exit of existing firms. Abstracting from obstacles to entry into and exit from the industry and from differences between firms, this becomes: price must equal average cost including normal profit for each enterprise.

2. For every individual firm, incremental revenue must equal incremental cost at all margins.

Since these criteria and their implications have been developed by other writers, they need not be elaborated in this abstract.

A few terms require definition: Revenue and price are always net of transportation costs to purchasers. Selling costs are those which affect the demand for a firm's product but are not directly dependent on volume of output. Production costs are dependent on the firm's output but do not affect demand. Hybrid production and selling costs are directly dependent on output but also affect demand; they are usually due to modification of product; e.g., by change in grade, style, or service.

As a basis for the analysis, five typical, but not in all cases universal, characteristics of demand and cost curves for the individual firm's product are assumed:

1. The elasticity of the average cost of production curve increases with output until it reaches infinity at the point of minimum cost.

2. With price fixed, the average cost of selling begins to rise while the average cost of production is still falling and the combined curve therefore reaches its minimum to the left of the low point on the production cost curve.

3. The demand curve for the product of the individual firm has a negative slope.

4. Marginal revenue, the additional income from the sale of an additional unit, with price variable but selling outlay constant, decreases as quantity sold increases or as price decreases.

5. At and near equilibrium the elasticity of demand may increase, remain the same, or decrease as quantity increases, but it cannot increase as rapidly as the elasticity of the average cost curve.

From these assumptions and from the marginal equalities defining the maximum profit position of the individual firm several useful theorems may be deduced. They are stated here without proof because of limitations of space.

Theorem 1. If two cost curves are combined by adding ordinates, the resulting curve at any quantity has an elasticity between the elasticities of the two other curves.

Theorem 2. Similarly, if from a curve of given elasticity a curve of lower elasticity at corresponding quantities is subtracted vertically, the resulting

curve has a higher elasticity than the minuend curve at corresponding quantities.

Theorem 3. If selling and production costs are separable, a net demand curve may be obtained by subtracting average selling cost from price. At each respective quantity the price and average selling cost are always the optimum for the firm; i.e., selling costs are carried to the point at which the marginal increments of price and average selling cost are equal. It should be observed that the successive price points from which average selling cost is subtracted do not, except by coincidence, lie on the same demand curve, since variations in the optimum selling activity shift the demand.

Theorem 4. The slope of the net demand curve at any point can be ascertained by subtracting from the appropriate demand curve a curve of average selling cost with unitary elasticity; i.e., one which is obtained by spreading the fixed total selling cost, optimum for that quantity, over a variable quantity.

Theorem 5. From the criteria for equilibrium and from assumption four (relative to the marginal revenue decreasing with price), it can be shown that at any given point the net demand curve is more elastic than is the relevant demand curve at the same height. The term "relevant demand curve" designates that curve from which the point on the net demand curve was derived.

Neglecting external economies of large-scale industry, it can be shown from the preceding assumptions and theorems that the introduction of advertising into an industry under a system of monopolistic competition has the following results.

Case 1. If advertising does not alter the individual firm's elasticity of demand, the output per firm is larger, and if marginal production cost is unchanged, price is the same; if marginal production cost rises, price is higher; if marginal production cost decreases, price is lower.

Case 2. If advertising increases the individual firm's elasticity of demand, output per firm is still larger, and if marginal cost of production is unchanged, price is lower; if marginal cost of production rises, price may be either higher or lower; if marginal cost of production decreases, price is lower.

Case 3. If advertising decreases the elasticity of demand the output per firm may be either larger or smaller. If size of firm is decreased, price is higher. If size of firm is increased, and if marginal cost of production is unchanged, price is higher; if marginal cost of production rises, price is still higher; if marginal cost of production decreases, price may be either higher or lower.

The factors making for a reduction in price as a result of advertising are an increase in elasticity of demand for the individual firm and falling marginal production cost. Conversely, the factors leading to a rise in price are a decrease in elasticity of demand and rising marginal production cost.

In view of these conclusions, it would be pertinent to inquire into the influence of advertising on elasticity of demand for the product of the individual enterprise. Without pursuing this study in detail, it may be observed that informational advertising which augments the knowledge of buyers with

to existence of firms, product characteristics, and prices, tends to make demand more elastic. Such advertising, especially if coupled with economies due to increase in size of firm, is clearly desirable. On the other hand, advertising stressing differentiation of firm and product, e.g., reputation, trade-mark, tends to make the demand less elastic. Undoubtedly, a decrease in elasticity is neutralized by falling marginal cost, such a situation can be defended only by showing its desirability on other grounds.

DR. H. CHAMBERLIN.—In monopolistic competition, each producer is treated as a monopolist, the demand for whose product is more or less depending on the extent to which he is subject to the competition of others for his product. The demand curve with which he has to reckon may be highly elastic, but is never perfectly elastic, i.e., horizontal, as in pure competition. His cost curve (average unit costs) is U-shaped, rising, because of the economies of large-scale production, to a minimum and rising again thereafter as the optimum output is exceeded. Equilibrium price and output are defined by the requirement that each producer seeks to maximize his profit. The familiar way of representing this is by fitting between the two curves just described a profit rectangle of maximum area. Another method much used recently involves the construction of two new curves, one of marginal revenue and another of marginal cost. The marginal revenue curve indicates at any point the addition to total revenue due to the sale of the last unit of product. It is derived from the demand curve, which may be regarded as an average revenue curve. The marginal revenue curve lies at all points below the demand curve because each unit of output forces down the price of the others, adds to total revenue a price which is smaller than its own price.

In monopolistic competition there may or may not be monopoly profits. If the demand curve lies above the cost curve over a part of its length, monopoly profits will be earned. If, however, the competition of substitutes is so great as to push it back to the point of tangency with the cost curve, there are no profits above the necessary minimum which is included in the cost curve. In either case, the scale of production is smaller and the price higher than would be under conditions of pure competition. The individual firm is smaller, it follows also that the number of firms is larger than under pure competition. This condition, I hold, obtains wherever the products of different producers are in any degree or respect differentiated from each other and this means over almost the entire economic system.

Without raising controversial questions about the productivity theory itself, we must accept it, at least for purposes of this argument, as valid under conditions of pure competition to which it has always been implicitly or explicitly related. We may distinguish three different meanings of the term "marginal product." It may refer to the physical product, to the value of the physical product, or to the value product, which is added to the total, in which case, by the presence of the marginal unit of the factor. The value of the marginal physical product is simply the physical product multiplied by its selling price, and will be hereafter referred to as the "marginal product." The marginal value product, on the other hand, refers to the added value—

the total value (price per unit multiplied by the number of units) when the last unit of the factor is used, less the total value when it is not used.

In adjusting his factors, whether under pure competition or under monopolistic competition, the entrepreneur is clearly interested only in the marginal value product of each. But under pure competition, since the producer can change his output without appreciable effect on price, this will always be identical with the marginal product. In other words, under pure competition the demand curve for the product of an individual producer being a horizontal line, his marginal revenue curve coincides with it. Marginal revenue is always equal to selling price. Hence marginal product and marginal value product to the individual producer are always identical. It is for this reason that, interested only in a factor's marginal value product, the entrepreneur arrives nevertheless at paying it its marginal product.

Under monopolistic competition the marginal value product of a factor to any individual producer is inevitably smaller than its marginal product. Since, in adding more labor, the entrepreneur is guided by the former rather than by the latter, it follows that he will never find it profitable and he will often find it impossible to pay to any of the factors their marginal products. It will be impossible if competition has pushed his demand curve to the left until all surplus profit is eliminated. If the demand curve lies further to the right, the surplus profit obtained may or may not be great enough to permit each factor to be paid its marginal product, but if we assume that entrepreneurs seek to maximize their profits, none of it will be put to this use anyway, and the lot of the other factors is in nowise changed. There is no escaping the conclusion that even a slight element of monopoly necessarily reduces the remuneration of all factors below their marginal productivity. The same conclusion is reached, of course, by the use of the marginal revenue curve.

It should be emphasized that the deviations of the distributive share from the marginal product are always in one direction—the share is always smaller. This fortifies conclusions stressed elsewhere in the general theory of monopolistic competition, that pure competition is an extreme, a limit, rather than a norm. Actual prices, distributive shares, and conditions of production generally, do not tend towards or oscillate about what they would be under pure competition. Rather, they tend towards norms in the definition of which the monopoly elements must be given full recognition. Except where the price processes are actually those of pure competition, competitive theory is a distortion of reality rather than an approximation of it.

It has been tacitly assumed up to this point that the product added by another laborer in any firm is a net addition to social product, not offset by a lessened product elsewhere in the system. This may well be true. But let us look briefly at the case where it is not. There are a number of reasons why prices may rest permanently and normally at some level higher than that to which unrestrained price competition would carry them wherever any particular seller is in direct competition with only a few others, a condition which obtains over a large section of industry. It is a possible result also

wherever there are restraints on price competition—actual or tacit agreements, business or professional “ethics” which condemn the “price-cutter,” the imposition of retail prices by the manufacturer, or by tradition or custom, price control by the NRA, and in general, the expenditure of competitive energy in other directions than that of price competition. If prices are held up by these factors, there can be a larger investment of resources in the field without diminishing the profits earned by each firm. In so far as it is possible for new firms to set themselves up and secure a part of the business, they will do so, and a condition of general excess capacity may develop disguised by the fact—if entry to the field is unrestricted—that profits generally are not above the competitive level. Under these circumstances what is the marginal social product of any factor of production as more resources are employed? The productivity to society of any factor or of any group of factors composing an enterprise must be considered as the total product it creates less that which its presence prevents others from creating. Let us suppose that three filling stations are adequately supplying the wants of a district at going prices when a fourth company sets itself up in business. What product does the new station add? If the outcome is simply the sharing of the available business by the four at the old prices, as it is very apt to be, it is difficult to see where there has been any addition at all. The utilities created by the newcomer less those no longer created by the three others is approximately zero. To be sure, there may be some additional convenience to those for whom the new station is more advantageously located. The product then will not be zero, but it will be far less than that indicated by regarding the new firm alone. There is a further complication since each firm is enjoying a reduced volume of sales, average unit costs are higher, and it may be that the prices of all will be adjusted upwards in order to cover costs. On this score it is conceivable that the total utilities of the community will be even less than before the newcomer made his appearance, higher prices leaving less of incomes to be spent on other commodities. All of these considerations must be taken into account, and it would surely be difficult to formulate accurately the net product added by the new firm or by any factor which it employs. Having formulated it, it would be further necessary, in order to apply the marginal productivity theory, to show an identity between this net social product and the marginal value product to the new firm, which, as we have already seen, governs the incomes of the factors employed by it. In this case of general excess capacity it appears that monopolistic competition results in a marginal product to society which, if not negative, is at least far less than the marginal product to an individual firm. The marginal value to an individual firm which governs the return to the factors it employs probably lies somewhere between the two.

It would be possible to escape the difficulty by interpreting the productivity theory generally in terms of value product instead of in terms of the value of the product. I have found only two writers who have done this. Professor Knight argues for value productivity, incidentally, without always making it clear whether he has reference to the individual firm or to an industry. He says, “The variations in physical contribution and in the value of that con-

tribution when an addition to any kind of agency is made, work in the same direction and must be added to give the total decrease in the value product. We shall call the aggregate variation by the name of diminishing value productivity, or simply diminishing productivity, which must always be distinguished from the diminishing physical returns."¹ Again, in the description of the distributive process working itself out, he says, "remunerations will rapidly be readjusted towards the values which the individuals contribute to the output of the groups with which they work."² It is only when faced with measuring a value contribution to the social total that Professor Knight is forced to retreat from his earlier definition and to hold (with the usual interpretation of the productivity theory) that an individual "will get the value of the physical contribution which he makes, enough value income to buy it."³ The fact that this contradicts the definition of marginal productivity already given seems to pass unnoticed, and elsewhere he is consistent with the first statement. More recently Mrs. Robinson has defined marginal productivity as value productivity—in her own words, "marginal physical productivity multiplied by the marginal revenue to the unit or group under consideration."⁴ To be sure, she is well aware of the importance of the distinctions we have made, and defines exploitation (with Pigou) as a wage less the marginal physical product of labor valued at its selling price, even discussing means whereby what seems to me an inevitable outcome of monopolistic competition might be avoided. Nevertheless, there are strong objections to allowing the concept of productivity to be metamorphosed in this way.

The first is that such a definition leads logically to the conclusion that monopoly is productive. This view Professor Knight with consistency defends at some length, taking J. B. Clark and his followers to task for holding that a monopolist appropriates product created by other agents.⁵ Yet if monopoly is productive, the destruction of utilities is put on a par with their creation, and in fact there is no longer any means of distinguishing between the two. The monopolist who destroys goods or restricts his production in order to increase the total value of the remainder is thereby productive. Any correlation whatever between increased production and welfare must disappear at once. Under such a theory, only that labor would be productive which was applied on commodities the demand for which had an elasticity greater than unity. Surely this is to reduce economics to absurdity.

The second objection is that a value productivity theory of distribution must stop short with the individual firm. Even under pure competition it is flatly untrue except in this restricted sense. It is universally true that every factor of production is paid according to the value it adds to the individual firm's total, but except under pure competition there is no relation whatever between this and its product. There is simply no bridging the gap between the value product to the individual firm and what is truly important, the value of the product to society.

¹ *Risk, Uncertainty and Profit*, p. 104.

² *Ibid.*, p. 106.

³ *Ibid.*, p. 107, note.

⁴ *Economics of Imperfect Competition*, p. 237.

⁵ *Op. cit.*, pp. 186-9.

My conclusions may be briefly summarized. Whether under pure competition or under monopolistic competition, each factor always receives its marginal value product to the individual firm. Under pure competition this is equal to its marginal product to the firm and likewise its marginal product to society. Under monopolistic competition, however, this is always less than its marginal product to the firm, and bears a very uncertain relation, if any, to its marginal product to society. In the case of selling costs, there seems to be no marginal product, either to the firm or to society, with which a comparison might be made. Our inquiry would also seem to indicate that it is only under pure competition that the interest of the business man coincides exactly with that of society. A slight admixture of monopoly alloys his interest in production with a degree of interest in restricting it, and a high degree of interest in producing wants instead of goods.

WILLIAM JAFFÉ.—Current solutions of monopoly or oligopoly problems yield results that are descriptive of partial equilibria or at best of temporary equilibria. In order to arrive at a definitive equilibrium it is not sufficient to study "the action of sellers alone (or of buyers alone),"⁶ but it is indispensable to study the actions of both simultaneously in their mutual interactions. Price determination under conditions of imperfect competition is no less dependent on the equilibrium of the economic system taken as a whole than is price determination under conditions of pure competition. As a first approximation to the solution of the problem of oligopoly price conceived as a component of the general economic system, I have, therefore, attempted to adapt the Walrasian equations to a simple case of imperfect competition where only one commodity is produced by an oligopoly while all other commodities are produced within the competitive scheme of things.⁷

Let us assume, first, that we have before us Léon Walras' general system of equilibrium established for the perfectly concatenated, frictionless, competitive case. In its most elementary form, this system may be described as one in which three fundamental conditions are simultaneously realized: each individual in our given universe maximizes his total satisfaction as far as his limited resources will allow, the effective supply of each commodity is equal to its effective demand, and the price of each commodity is exactly equal to its cost of production. Consequently part of this system, supposing that there are m products, will consist of m equations expressing equality between price and cost of production, thus

$$(1) \quad \begin{aligned} p_a (= 1) &= a_i p_i + a_p p_p + a_k p_k + \dots = \sigma_a \\ p_b &= b_i p_i + b_p p_p + b_k p_k + \dots = \sigma_b \\ p_c &= c_i p_i + c_p p_p + c_k p_k + \dots = \sigma_c \\ . &\dots\dots\dots . \\ p_m &= m_i p_i + m_p p_p + m_k p_k + \dots = \sigma_m \end{aligned}$$

* Edward Chamberlin, *The Theory of Economic Competition* (1988), p. 19, footnote 1.

¹ I am indebted to Miss Harriet Postle, a graduate student, and to Professor H. S. Wall, of the Mathematics Department of Northwestern University, for their assistance in working out this adaptation.

where the p 's are prices, the subscripts $a, b, c, \dots, m$ designate the different kinds of commodities (A), (B), (C), $\dots$ (M), the subscripts $t, p, k, \dots$ designate the different kinds of factors of production (T), (P), (K), $\dots$, and the small a 's, b 's, c 's, $\dots$, etc., are the technical coefficients; i.e., the quantities of each factor of production described by the subscripts that enter into the fabrication of a single unit of (A), (B), (C), $\dots$, etc. We may, therefore, replace our itemized account of this sum by a total σ_a for the cost of production of a single unit of (A), σ_b for the cost of production of a unit of (B), etc.

Now let the production of commodity (C) fall into the hands of l oligopolists—to that extent modifying the perfect competitive case with which we started. Let us suppose, furthermore, that the l oligopolists pursue a live-and-let-live policy as defined by Cournot. Then p_c will no longer equal σ_c but will become something greater. How much greater it will become depends upon the extent to which each oligopolist can realize maximum profits given the elasticity of the total effective demand for (C), given the cost or σ_c functions for each oligopolist, and given the number of oligopolists. In any case we can say that the new p_c will be such that

$$(2) \quad p_c = \sigma_{c,1} + \omega_1 = \sigma_{c,2} + \omega_2 = \dots = \sigma_{c,l} + \omega_l$$

where the numerical subscripts up to l designate each of the l oligopolists and where each small ω represents the profits per unit for each oligopolist indicated by the subscript of the ω . But each σ_c is, as in the competitive case, a function of the output of each producer. Thus

$$(3) \quad \begin{aligned} \sigma_{c,1} &= \sigma_{c,1}(S_1) \\ \sigma_{c,2} &= \sigma_{c,2}(S_2) \\ &\dots\dots\dots \\ \sigma_{c,l} &= \sigma_{c,l}(S_l) \end{aligned}$$

where the S 's represent the output of each oligopolist. Let it be noted parenthetically that we are assuming for the sake of simplicity that these functions are carry-overs from the perfect competitive case, so that they are not new variables. Now then, letting $\Omega_1, \Omega_2, \dots, \Omega_l$ represent the total profits of each oligopolist, it follows that

$$(4) \quad \omega_1 = \frac{\Omega_1}{S_1}, \quad \omega_2 = \frac{\Omega_2}{S_2} \dots \omega_l = \frac{\Omega_l}{S_l}.$$

Substituting now in (2) the values obtained in (3) and (4), we get

$$(5) \quad \begin{aligned} p_c &= \sigma_{c,1}(S_1) + \frac{\Omega_1}{S_1} \\ p_c &= \sigma_{c,2}(S_2) + \frac{\Omega_2}{S_2} \\ &\dots\dots\dots \\ p_c &= \sigma_{c,l}(S_l) + \frac{\Omega_l}{S_l}. \end{aligned}$$

If we put this system (5) in the place of the third equation of system (1) established for the competitive case, we shall be introducing into our original system $l-1$ new equations containing $2l$ new variables; viz., l new S 's, and l Ω 's. It now remains for us to find $l+1$ new equations which are necessary conditions of our problem. Dr. Erich Schneider in his excellent *Reine Theorie monopolistischer Wirtschaftsformen* gives l of these required equations which he derives from Cournot's solution:

$$(6) \quad \frac{\partial \Omega_1}{\partial S_1} = \frac{\partial \Omega_2}{\partial S_2} = \dots = \frac{\partial \Omega_l}{\partial S_l} = 0.$$

These equations are necessary conditions of our problem, for they are conditions of the relative maximum profits obtained by each oligopolist within the restrictions of the live-and-let-live policy.

Finally we have the equation

$$(7) \quad S_1 + S_2 + \dots + S_l = S_0$$

which is again a necessary condition for it asserts that the total supply of (C) is limited to what our l oligopolists are willing to offer.

Now we have as many new equations as there are new variables. Provided that the σ functions in our new equations are continuous and differentiable, then equations (5), (6), and (7) characterize the economic situation.⁸ These equations offer a system of solutions. At one extreme we have the Walrasian solution, if $\omega_i = 0$ ($i = 1, 2, \dots, n$) ($n > M > l$)⁹. At the other extreme we have the pure monopoly solution which gives us the maximum maximorum for Ω . And in between these two extremes relative maxima may be found depending upon the conditions imposed, the Cournot live-and-let-live conditions for example.

From another part of the Walrasian total system we know that

$$(8) \quad S_0 = D_0$$

where D_0 is the total demand for (C). We know also that

$$(9) \quad D_0 = F_0(p_1, p_2, p_3, \dots, p_n, p_b, p_c, \dots, p_m)(p_a = 1)$$

which is arrived at by the action of all buyers striving to maximize their total satisfactions by the utilization of limited resources in exchange. It follows that

$$(10) \quad S_1 + S_2 + \dots + S_l = F_0(p_1, p_2, p_3, \dots, p_n, p_b, p_c, \dots, p_m).$$

When it is remembered that the left-hand side of this equation is determined by the condition of relative maximum profits for each seller, and that the right-hand side is determined by the maximization of buyers satisfactions

⁸ Cf. analogous situation in Chamberlin, *op. cit.*, pp. 180-81, where additional conditions on the derivatives are shown to be absurd in view of the fact that no oligopolist can set the supply of any other oligopolist as he pleases. If he could, he would set all his rivals' supplies at zero.

⁹ Since $\Omega_i = \omega_i S_i$ ($i = 1, 2, \dots, n$) ($n > M > l$), it follows that $\frac{\partial \Omega_i}{\partial S_i} = \omega_i + S_i \frac{\partial \omega_i}{\partial S_i}$.

But under competitive conditions $\omega_i = 0$ and $\frac{\partial \omega_i}{\partial S_i} = 0$. Consequently equations (6) are satisfied for the competitive case.

within the restrictions set by the other conditions of our system, it is seen that a definitive equilibrium monopoly or oligopoly price can only be established by studying the actions of both buyers and sellers simultaneously.

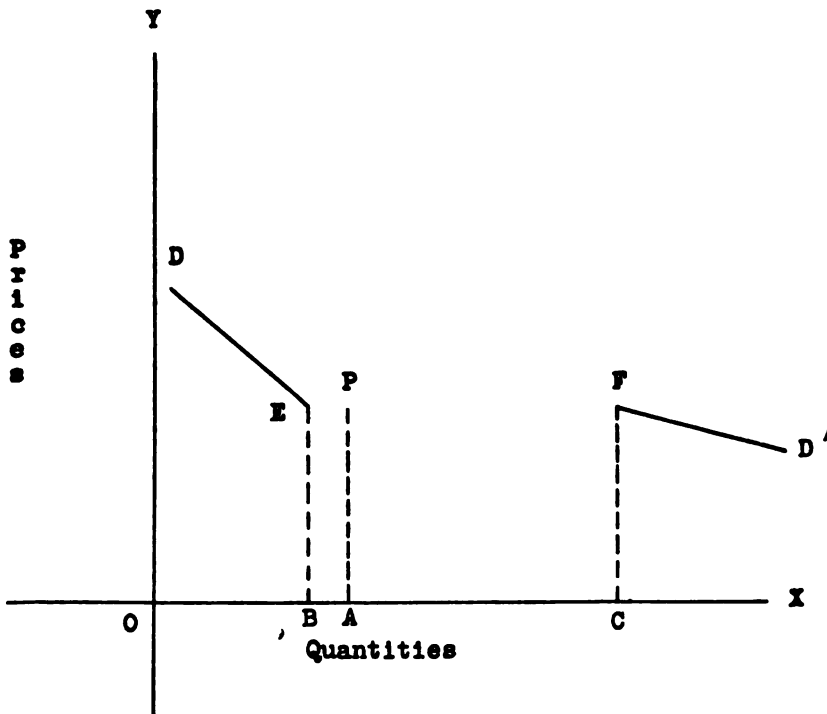
L. A. MORRISON.—My own work along the general line of the papers presented at this conference does not lead me to believe that important results are to be obtained by the use of the traditional method of economic theory in the formulation of an elaborate theory of imperfect competition. The method to which I refer, and which has been adopted by the exponents of the theory of monopolistic or imperfect competition, consists of tracing out the mechanics of individual self-interest in relation to economic processes.

The more familiar theories have held the interest of economists not because of the light they throw on the actual adjustment and variation of the production, prices, and use of goods. By virtue of the method of economic theory, the tastes of people, their knowledge of the forces and resources of nature, institutional arrangement, and other variable conditions are excluded from its field of analysis. Even if these theories were perfectly correct explanations of the mechanics of self-interest, they would provide a minimum of information on the progress of events. The familiar theories are important because they provide the rationalization, the casuistry, of a system of free enterprise. They are supposed to demonstrate that under such a system the interests of people are, in general, harmonious, and that such maladjustments as appear are generally and normally self-corrective. These theories have created a presumption against social interference in the great bulk of business and industrial activities, and it has been on account of the bearing of these theories on matters of social policy that so much attention has been devoted to their refinement and elaboration.

The approach, conceptions, and general conclusions of the orthodox economics are based upon the assumption that competitive price theory provides an appropriate basis for a general interpretation of business and industrial processes. And the point of departure of the theory of imperfect competition is the denial of that assumption. According to the later view, conditions, formerly regarded merely as imperfections or "frictions," really invalidate competitive price theory as an explanation of general tendencies and "normal" market behavior. There can be no doubt of the damaging impact of the new theoretical development on the generally accepted conclusions of economic theory. The idea, however, that prices and commercial activities are adjusted in accordance with the elaborate principles recently set forth as theories of monopolistic or imperfect competition, is based upon the assumption that business enterprises have exact knowledge of the effects of their policies on the actions of others. Such knowledge, business enterprises do not possess, and economic theory cannot provide.

A. J. NICHOL.—One fundamental aspect of Professor Chamberlin's analysis of monopolistic competition is the assumption of a perfectly continuous demand curve for the product of each competitor. The same assumption has also been made by Mrs. Robinson and other writers on the subject. It seems to me very doubtful whether this assumption represents a realistic condition of general significance. Under pure competition any competitor who raises

his price for any length of time ever so slightly above the general price level of his rivals may be expected to lose all of his business. In extreme cases of product differentiation it may be that only a very small part of any particular competitor's business is lost to him when he raises his price slightly above the general level. In such cases Professor Chamberlin's continuous demand curve is valid. Usually, however, there is at least a considerable minority of buyers who are not induced by advertising, salesmanship, service, or other considerations to form a distinct preference for any one of a number of competing products. As long as the prices of all these products are the same, any choice between them is a matter of indifference to some buyers. When the price of any one of the competing products is raised slightly above the price of the others, neutral buyers may be expected to cease purchasing the dearer product even though others with a distinct preference continue buying it. Thus a slight price difference may be expected to bring about neither the cessation of all the higher priced product's sales nor merely a very small fractional change in sales, but some intermediate fractional change much larger than the relative change in price.



Graphically, then, the demand for any one of a number of competing products is represented not by a continuous curve but by a curve broken at the general price level. PA is assumed to be the price at which all except one of several competing products equally in demand are selling. The price of

one and only one of the products is assumed to change. If this one product (like its rivals) sells at price PA , a quantity OA may be disposed of; but if its price is lifted slightly above PA , the loss of the trade of neutral buyers may decrease its total sales to OB . If its price is slightly lowered, its sales may be augmented by the purchases of neutral buyers to a total of OC . Thus the demand curve is discontinuous at the level of PA . At other levels above and below it may be continuous. We have then a demand curve with two distinct branches, DE and FD . Such a curve, it is submitted, conforms roughly at least with actuality in most cases of so-called monopolistic competition. Assumption of such curves will bring about a marked alteration in some of Professor Chamberlin's conclusions.

SESSION ON THE TRANSPORTATION PROBLEM

FUNDAMENTALS OF A NATIONAL TRANSPORTATION POLICY

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What are the fundamental requirements if the various types of transportation agencies in the United States are to be welded into a national transportation system which will be able to conduct the business of transportation in the most efficient and economical manner possible? In solving this basic problem, I shall develop my discussion under the following headings: (1) The principles underlying early American transportation development; (2) the causes of haphazard and unco-ordinated development between 1840 and 1933; (3) the policies that must be adopted by the government to secure a unified transportation system; (4) the relation of transportation companies to the process of co-ordination; and (5) the principles which should be followed in setting the level of transportation charges. In the nature of the discussion under each heading will have to be of a summary character.

PRINCIPLES UNDERLYING EARLY AMERICAN TRANSPORTATION DEVELOPMENT

Not just one hundred years ago this decade that various state governments in this country embarked upon extensive programs of public works in the form of canals, railways, and turnpike highways. Following closely upon the opening of the Erie Canal and the invention of the railway, in nearly a score of states great systems of co-ordinated transportation agencies were projected. The costs involved were not to be borne by the taxpayers, but were to be met by the tolls and other charges levied against the users of these transportation agencies. Instead of rather than being a burden upon the taxpayers it was assumed that great financial profits would be realized by the state. For example, in Pennsylvania "it was predicted that the tolls would support the government and educate every child in the commonwealth." In Michigan the people were assured that not only would the returns from transportation investments prove sufficient to pay off the state debt speedily, but that there would actually be "a plethora of funds in the treasury which would forever free the inhabitants of Michigan from the burdens of taxation." These hopes of financial gain were, however, rudely shattered by the financial crisis of 1837 and the ensuing depression. No significant principles stood out clearly in these early transpor-

tation programs. First, it was assumed as a matter of course that transportation service should be paid for by those who received the direct benefits; namely, shippers and travelers. Second, the thinking of that day was in terms of transportation rather than merely of particular types of transportation agency. Some of the early charters conferred broad titles such as "The New Jersey Railroad and Transportation Company."

CAUSES OF UNCO-ORDINATED DEVELOPMENT BETWEEN 1840 AND 1888

As a result of the disastrous effects of the crisis of 1837 upon the financial condition of state governments, public sentiment turned violently against government participation in transportation, and revised state constitutions in many cases explicitly forbade such participation in the future. It appeared likely in the early thirties that our transportation system would be predominantly constructed and operated by the states; but the ensuing financial collapse forced transportation development to proceed henceforth largely under private initiative.

In the following decades state highway systems largely succumbed to the competition of the railways; and public road construction became almost exclusively a function of township and county government. Private enterprise in the main fought shy of the towpath and the canal boat, and turned to the steel rail and the iron horse. There followed an era of tremendous railway development under private initiative, an outstanding characteristic of which was a complete lack of co-ordination—either between railway systems or of railways with other forms of transportation.

The decline of river and canal traffic in the sixties and seventies, under the pressure of railway competition, led to an organized movement for the preservation of water transportation. The first step taken was the abolition of tolls—in 1888 by the state of New York on its state canal system, and in 1884 by Congress on all federal rivers and canals, with the exception of the Panama. But even when the overhead costs of water transportation—capital charges and maintenance—were thus transferred from shippers to the general taxpayer, the water routes were still unable to maintain any considerable volume of traffic.

It was then concluded, erroneously, that the explanation of the failure of water transportation to survive was the inadequate depth of existing canals and river channels.¹ Hence, about the turn of the century a great

¹ The truth is that our inland waterways were typically already deep enough to accommodate barges of the most efficient type. Most of Germany's extensive waterborne commerce is carried in barges drawing less than seven feet of water.

movement was inaugurated for the rehabilitation and the deepening of our inland waterways. Between 1890 and 1930, expenditures upon internal waterway development in the United States, exclusive of those on the Great Lakes and seacoast harbors, have amounted to \$1,177,000,000. In all cases both the initial capital charges and the cost of maintenance are borne by the general taxpayers.²

The development of our waterways during the past thirty years, which has been carried out mainly under the auspices of the federal government, has in no sense been co-ordinated with other aspects of our transportation policy. These waterways have not been constructed for the purpose of supplementing otherwise inadequate transportation facilities, nor have waterway routes been in any way articulated with other transportation agencies.

The last three decades have also seen the extensive development of a third great agency of transportation; namely, state and national highways. The construction of hard-surfaced long distance highways was undertaken primarily for the purpose of accommodating passenger automobiles, mainly pleasure bent, but as soon as these highways became available long distance truck traffic of course became possible; hence a new and very significant competing transportation agency arrived.

These new super-highways were laid out without the slightest reference to the existence of rail or waterway transportation facilities. They have been conceived as a wholly independent form of transportation; and it is safe to say that neither state governments nor the federal government until the last few years have ever given the slightest thought to the relation of highway transportation to national transportation policy as a whole.

During the last thirty years, also, we have witnessed the development of an extensive pipe line mileage and the substantial beginnings of air transport. The construction of oil pipe lines began as early as 1860 but the rapid growth of this specialized form of transportation dates from about 1900. At that time there were from 10,000 to 15,000 miles of pipe lines in the country, mainly east of the Mississippi River. At the end of 1931 there was a total oil pipe line mileage of 111,000 miles, equal to about 45 per cent of the total railway mileage of the country. Gasoline pipe line mileage aggregated 8,210 miles.

In the light of this summary history, it is readily apparent why we do not possess in this country a unified national transportation system or anything resembling a national transportation policy. The net result of our haphazard transportation development has been to give us a great excess of transportation capacity, even in normal times, unreason-

² On the Panama Canal, on the other hand, tolls are charged.

ably high transportation charges, and a heavy and quite unnecessary burden upon the American taxpayer.

POLICIES REQUIRED FOR SOUND TRANSPORTATION UNIFICATION

We turn now from contemplation of the existing state of affairs to the problem of co-ordinating our transportation agencies in the light of sound national policies. I shall confine myself to a statement of the basic principles involved. Discussion of the need of co-ordination or unification of transportation agencies usually proceeds upon the basis of well-sounding but hazy generalizations to the effect that each form of transportation has its logical place in the transportation system as a whole, and that each should therefore be retained and assigned its proper place. But such a statement is based on no clearly defined principle. It suggests no test for determining the proper place of each type of transportation agency. The preliminary necessity is to set up a standard for judging what forms of transportation are best adapted to our needs.

The primary transportation requirement may be stated very simply: We, the people, require of our transportation agencies one primary thing; namely, the movement of commodities and people in the cheapest and most efficient manner possible. In pursuit of this objective there should be no predisposition to favor any particular type of transportation agency. It is immaterial whether all traffic moves by one form of transportation or another; whether certain types of traffic are carried exclusively by some particular agency; or whether all forms of transportation are used as parts of a co-ordinated system. The primary requirement is that freight and passenger traffic shall actually move by the particular transportation agency, or combination of agencies, which can carry it, all elements of cost considered, in the most economical and serviceable way.

What changes of policy are required in order to make sure that the test of economic efficiency will be applied in connection with the further development of transportation in the United States? The answer in general terms is that all forms of transportation must be placed on a basis of economic parity or equality. In specific terms, this means that all transportation agencies must be treated exactly alike: (1) in the matter of government financial aid; (2) with reference to taxation; and (3) as to regulation. When this is done, traffic will automatically move over that agency which can render service at lowest cost. But so long as any particular type of transportation agency is given special advantages, in the form of subsidies from the government treasury, exemption from taxation, or freedom from the regulation of rates, standards of service,

wages, etc., traffic may be artificially diverted to the less economical type of carrier.

Existing national policies result in a complete lack of economic parity or equality as between our various transportation agencies. The facts in brief with reference to subsidies, taxation, and regulation respectively are as follows:

1. *Government subsidies to transportation.* Oil and gasoline pipe lines obtain no subsidies or free service of any kind from the government. The railroads, taken as a whole, have received in the form of early land grants and other financial aids a subsidy equivalent to approximately 4 per cent of the book value of their properties³—though many individual roads have received no grants of any kind. In return for land grants, railroads are bound by agreement to carry mail and military supplies and troops at low rates. Air transport receives large financial aid through mail subsidies and the contribution of municipal airports. Federal aid to air transport during the fiscal year 1982, for example, amounted to \$26,774,027, as compared to contributions from passengers and postal patrons of approximately \$15,000,000.

The highways are constructed chiefly by local and state governments, with some aid from the national government. Immediately speaking, a new highway, or highway system, imposes large, direct burdens upon the taxpayers for capital and maintenance charges. The policy has gradually developed, however, of recouping costs borne by the government through the levying of registration fees and gasoline taxes. By 1980 it appears that for the country as a whole, with the situation varying widely in different states, the income from special motor vehicle taxes levied against the users of state highways covered approximately 80 per cent of the costs assignable to state highways.⁴ In the case of local road systems, however, highway users' taxes covered only about 20 per cent of the costs involved.

In the case of inland canals and canalized rivers all the capital costs and maintenance charges, as indicated above, are borne by the government, and in some cases the government itself operates barges on a basis which is not self-sustaining. The extent of government subsidies to water transportation, expressed in terms of ton-mile rates for purposes of comparison with rail and water charges to shippers, may be indicated by a few concrete examples.

On the New York State canal system the cost to taxpayers, for overhead and maintenance charges, amounted in 1981 to 7.84 mills per ton-mile. The actual freight rates paid by shippers on the New York

³ For details see Moulton and Associates, *The American Transportation Problem*, pp. 466-68.

⁴ Exclusive of city streets which form integral parts of state highway systems.

canals averaged about 4.5 mills. The inclusive cost of water transportation on the Erie is thus 12.84 mills per ton-mile—which is equivalent to 14.81 mills in terms of the shorter railroad mileage between Buffalo and Albany. The average freight rate per ton-mile on the New York Central Railroad in the same year was 9.87 mills; on the Erie Railroad, 9.72 mills; and in the central eastern region as a whole, 10.82 mills. These rates represent the average on all classes of freight, while the water traffic consists largely of bulky commodities. Mention may also be made of the fact that out of the rate paid by railroads provision had to be made for taxes, equivalent to approximately .8 mills per ton-mile.

On the Ohio River the government subsidy to shippers amounted in the fiscal year 1981-82 to 7.46 mills, while the rates to shippers averaged approximately 6 mills. Since the distance between river points is typically from 40 to 50 per cent greater by river than by rail, the inclusive water rate, in terms of rail mileage, is 18.84 mills. This may be compared with average rates on the Chesapeake and Ohio Railroad of 5.97 mills per ton-mile. The foregoing figure for the government subsidy is computed on the basis of total traffic, including the non-revenue tonnage arising from the government's dredging and construction operations. For the commercial traffic, of which about 85 per cent is coal and coke, the subsidy amounts to something like 22 mills per ton-mile.

It is of interest to note how and when non-revenue tonnage came to be included as water traffic. Prior to 1924 sand and gravel dredged from river channels and other tonnage growing out of construction work, like railway non-revenue traffic, were not included in the traffic figures. But in that year Mr. A. H. Ritter, statistician for the United States Corps of Army Engineers, thoughtfully broadened the method of compiling waterway traffic data to include everything. During the last decade of large waterway expenditures the non-commercial traffic has naturally increased with great rapidity, and has served as very useful "evidence" before Congress as to the successful results of our waterway policy. With this non-commercial traffic excluded, the total traffic on the Ohio River in 1980 appears not appreciably greater than in 1905.

On the Missouri River between Kansas City and St. Louis the government's subsidy amounts to something like \$8,000 a ton for the commercial traffic moved. In 1929, the last year for which the non-revenue and commercial traffic are shown separately, the traffic in government materials amounted to 1,157,553 tons, and the commercial traffic to 779 tons. This 779 tons consisted of 750 tons of logs, 10 tons of horses and mules, 6 tons of cattle and hogs, 6 tons of corn, 4 tons of machinery, and 8 tons of "all other." To move this traffic at a saving to shippers of a few thousand dollars the unwitting taxpayers contributed \$6,090,294. I say unwitting taxpayers because, under a system where the overhead

costs of transportation are borne by the government, the facts as to the costs involved on any particular project lie buried in the general accounting figures of the Treasury, and become known only when someone goes to the trouble of extracting the expenses in connection with specific projects and allocates these charges to the traffic moving over the routes in question.

2. Taxation. The practice with reference to the taxation of the several types of transportation agency vary widely. Oil and gasoline pipe lines pay their proportionate share of property and income taxation; that is to say, taxes are levied against the physical properties and income in exactly the same way that they are levied against the property and income of other business enterprises. Railroad taxes are also levied in accordance with general taxation principles. The property taxes apply both to land and fixed capital investment and rolling stock. Airplane companies are subject to taxation both on the property invested in airplanes and on income; but they of course pay no taxes on municipal airports. Boat companies are obliged to pay taxes on the property invested in boats and on income; but the water highway, whether river or canal, is untaxed. Nor do the boat companies pay taxes on municipally contributed piers and shipping facilities.

The tax issue with reference to the highways is a confused one and requires careful analysis. So far as personal property and income taxes are concerned, the situation is clear. Personal property taxes on motor vehicles and income taxes on motor vehicle companies are in general levied in accordance with the same principles that govern the taxation of other types of property and business income. There is, however, a great deal of variation in the practice among the several states with reference to the levying of such taxes.

The confusion and the issue arise chiefly in connection with registration fees and gasoline taxes, which are usually designated as "special motor vehicle taxes." These so-called "taxes" are not, strictly speaking, taxes at all, as is readily revealed by comparison with railroad taxation. The railroad company covers the cost of its right-of-way and the maintenance thereof from revenues derived from freight and passenger rates. That portion of the revenues which is assigned to cover capital charges is called interest or dividends, and that which goes for maintenance is a part of the cost of operation. If the contributions of highway users in the form of gasoline taxes and license fees are sufficient merely to cover capital costs and maintenance charges incurred by the state, they represent only the equivalent of interest and maintenance charges among the items of railroad expense. After meeting interest and maintenance charges, the railroads must, however, pay taxes on their physical properties for the general support of government. Not until the proceeds of

gasoline taxes and license fees exceed the capital and maintenance charges on the highways borne by the state will they be contributing anything to the general support of government; and not until they do contribute something for the general support of government can such levies be properly regarded as taxes.

Two issues are involved in the question as to whether these special motor vehicle levies should be made to exceed the costs incurred by the state. The first is a question of equity in taxation. If the value of land in public highways is not taxed—as is the case if gasoline and license taxes cover only capital and maintenance charges—the tax burdens on other properties must be proportionally heavier. Why should a piece of land carved out of farms to permit the passage of a railroad be taxed, and a similar piece carved out for the purpose of a highway not be taxed? The second issue relates to the problem of economic parity in the matter of transportation. If highway real estate property is untaxed while the railroads and pipe lines are taxed, the latter are to that extent clearly placed at a competitive disadvantage. This may mean that traffic is diverted from one agency to another, not because of greater transportation efficiency but simply because of unequal tax burdens.

8. *Regulation.* Similar variations exist with respect to transportation regulation. Our various agencies of regulation are wholly unco-ordinated and the policies that have been developed are often conflicting in purpose. Oil and gasoline pipe lines are under the general supervision of the Interstate Commerce Commission, but there has been little attempt to control rates or other elements of the business. Air transport regulation falls under both the Department of Commerce and the Post Office Department, and regulation is confined to problems of safety.

The regulation of motor vehicles is subject to state laws governing the use of the public highways. The regulations are concerned mainly with questions of public safety, including liability for damage or injury; the types, equipment, dimensions, and load limits of vehicles; the qualifications and working hours of operators; and the conditions of operation, including speed, signals, interference with the normal flow of traffic, etc. In the absence of federal regulation the states also exercise a measure of police control over interstate motor carriers, requiring them to conform to certain general rules and regulations. The highways, so far as the federal government is concerned, are under the jurisdiction of the Bureau of Public Roads of the Department of Agriculture. There has been little regulation of wages and working conditions and virtually no regulation of rates.

The following federal agencies are concerned, in one way or another, with waterways and shipping: the Interstate Commerce Commission;

the Corps of Engineers of the War Department; the Bureau of Lighthouses of the Department of Commerce; the Bureau of Navigation and Steamboat Inspection of the Department of Commerce; the Coast Guard of the Treasury Department; the United States Shipping Board; and the Inland Waterways Corporation of the War Department. Regulations are confined largely to safety considerations. The rates which inland water carriers may charge are not regulated, nor are the wages and working conditions controlled. Interstate coastal rates are under the control of the Shipping Board, but until very recently, at least, there has been no semblance of control.

The regulation of railroads extends to nearly every phase of the business, and is carried on by both federal and state governments. It covers such diverse problems as safety requirements and labor conditions; capital issues, reorganizations, and consolidations; the construction of new lines or extensions, and the abandonment of existing routes; and the establishment of just and reasonable rates—both specific rates and the general level of charges.

The scattering of our regulatory agencies over many departments of government inevitably results in varied and conflicting policies. The very system, moreover, militates against thinking in terms of transportation as distinguished from each particular form of transportation. We cannot make even a beginning toward the establishment of an economically sound national transportation system until our system of regulation is unified. Efficient co-operation in the movement of traffic by the cheapest possible agency, or combination of agencies, cannot possibly be realized under an unco-ordinated regulatory system such as we now possess. Unified federal control is essential for the establishment and carrying out of such a principle.

Economic parity and the movement of traffic at lowest actual cost, it should be repeated, can be accomplished only when all forms of transportation are treated exactly alike in the matter of government subsidy, taxation, and restrictive or other regulations. This means—assuming the government is not also to subsidize railroads—that tolls on waterways must be levied for the purpose of covering capital and maintenance charges now borne by the taxpayers. It means that aids to air transport companies, in the form of mail subsidies or otherwise, should be rapidly reduced as this transportation industry emerges from the stage of infancy. It means—assuming that the present taxation system with reference to railroads and pipe lines is retained, as I think it should be—that the special automobile taxation, in the form of registration fees and gasoline taxes, must be increased until the users of the highways contribute, over and above the capital and maintenance charges borne by the state, a sum equivalent to the taxes now levied on railroads, pipe lines,

etc. It means that similar regulatory principles must be established for the several forms of transportation.

TRANSPORTATION COMPANIES AND CO-ORDINATION

There appears to be little possibility for effective co-ordination of our transportation agencies in the common business of transporting goods so long as they remain as separately organized competing companies. What we need is a system which will make it possible to move goods from point of origin to point of final destination with the minimum cost—which may mean in one case that they would move all the way by water, by rail, or by truck, whereas in other cases it might mean a utilization of several types of transportation agency. So long as the various agencies of transportation are independent each one always desires to move the traffic all the way, or as far as possible, over its facilities. There is thus always an attempt to make rates so as to accomplish this purpose.

The fundamental difficulty cannot be solved by having the government arbitrarily adjust rates so as to make traffic move part way by one agency and part by another—for the question of the cheapest route, all factors considered, varies with different consignments and their varying requirements. Such a problem can be handled effectively only by a single transportation company having freedom to use the various forms of transportation in whatever combination experience may prove to be the most economical in moving goods or persons from any place to anywhere. The public is interested only in having commodities moved from point A to point B as cheaply and as efficiently as possible, and has no concern with whether it moves by a single agency or by a combination of several agencies.

The fear which some express that if railroad companies, for example, were permitted to engage in other forms of transportation they would proceed at once to throttle competition, regardless of transportation economies, seems groundless. A railroad company, converted to a transportation company, would still be interested in maximum profits; and if it proved cheaper to send certain commodities, or for that matter all traffic, by truck, or bus, or airplane, or boat as the case might be, such companies would be shortsighted indeed if they failed to use these alternative agencies. The moment a railroad company becomes a transportation company the point of view of the management with reference to using trucks, or busses, or airplanes automatically changes.

It is recognized, of course, that the establishment of transportation companies would mean the abandonment of competition between the various types of transportation agency as a means of regulating rates.

The transportation business would become more completely a monopoly than ever before.

The attempt to control railroad rates by means of competition has, in my judgment, never been a sound method of regulation. It has led to extensive duplication of transportation facilities and imposed enormous burdens alike upon the taxpayers and the shipping public. Consider, for example, the expenditures now being made on the upper Mississippi River. The shippers in the upper Mississippi territory do not expect to ship any great quantity of goods over the improved Mississippi; but once they get potential water competition they will be in a position to demand a reduction of railroad rates. Thus we expend hundreds of millions of dollars, not because additional transportation facilities are needed or because the costs of transportation would thereby be reduced but merely as an indirect means of forcing a reduction of railway freight rates, which the Interstate Commerce Commission already has power to reduce if considerations of public policy demand it.

If all our forms of transportation were placed upon a basis of economic parity, with the full costs of transportation imposed where they belong—upon the shippers—and if then the business of transportation were allowed to be conducted by transportation companies, the entire problem of transportation regulation would be enormously simplified.

Railroad consolidation in one degree or another is currently being regarded as an essential step in the process of reducing the burden of overhead railway charges and of effecting economies in operation. I am inclined to believe that the economies which are possible can be achieved in fullest measure through a completely unified system—though perhaps a number of great systems would possess compensating advantages. In any case, the ultimate possibilities for economy in transportation can be realized only when the railroad system is thoroughly co-ordinated with other forms of transportation. What we require is a completely integrated national transportation system conducted by transportation companies—with the public interest protected by means of appropriate federal regulation.

REGULATING THE LEVEL OF TRANSPORTATION RATES

Transportation is a public utility, and, whether it is conducted by specialized types of agencies or by integrated transportation companies, the interest of the public in good service and in just, reasonable, and non-discriminatory rates must be protected by the Commission and the courts. The regulation of rates involves always a two-fold problem: (1) to ensure that particular rates shall be fair and equitable; and (2) to protect the public from possible excessive rates for railway services as

a whole. The discussion which follows pertains only to the latter problem.

The history of discussions of the principles of rate regulation and of our experience in attempting to regulate railway rates is illuminating in more ways than one. First, it reveals that professional economists, lawyers, commission officials, and jurists alike have, in many cases, allowed their reasoning to be profoundly influenced by their particular interests and desires. Second, it shows that under a system of independent or competing transportation companies, regulation of the general level of rates with a view to ensuring fair profits for the roads as a whole is impracticable. Third, it indicates that instead of a single theory of rate regulation, applicable at all times and under all circumstances, the conditions of a dynamic society require a pragmatic theory of rate-making. Each of these statements necessitates at least a brief explanation or justification.

1. *Changing interests and shifting views.* The record shows clearly that views as to the relative merits of the cost of production and the cost of reproduction principles of rate regulation have shifted with changing conditions. In the nineties, when the cost of reproduction was below original cost, the railroads insisted that the proper basis for adjusting rates was the actual amount of investment that had been made. On the other side, the defendant of the public's interest, William J. Bryan, argued vigorously in *Smyth v. Ames* (1898) for the reproduction cost theory on the ground that the public was entitled to the benefits of progress. With the subsequent rise in prices, particularly during the World War period, the carriers became stanch advocates of reproduction costs, whereas the representatives of the public contended that such a principle was indefensible. For example:

Where the financing has been proper, the cost to the utility of the capital required to construct, equip, and operate its plant should measure the rate of return which the Constitution guarantees opportunity to earn. . . . The rate base would be ascertained as a fact, not determined as a matter of opinion. . . . It would, when once made in respect to any utility, *be fixed for all time* [italics mine], subject only to increases to represent additions to plant, after allowance for the depreciation included in the annual operating charges.*

So long as the cost of reproduction remained higher than original cost, the railroads continued to favor the former, and defenders of the public interest continued to favor the latter. But since the great decline in prices that has occurred during the last four years and the discovery that something like 25 per cent of our total railroad mileage should be scrapped in the interest of the public welfare, views are again rapidly shifting. Railroads and investors would be happy indeed if they could be guaranteed a return on the basis of original cost; but, on the

* Mr. Justice Brandeis, in *Southwestern Bell Telephone Co. v. Public Service Commission of Missouri*, 262 U. S. 276, 308-07, 1923.

other hand, guardians of the common weal find it difficult to believe that the public should be expected to pay rates which would cover the costs of obsolete properties and permit the payment of interest upon the high-cost investments of pre-depression days—however prudent they may have appeared at that time. It is insisted that the capital structure on which charges are to be met should be reduced far below the physical valuation figures compiled by the Commission.

2. *Impracticability of adjusting the rate level.* Our experience in the decade following the passage of the Transportation Act in 1920 has conclusively shown the impossibility of regulating the general level of rates of a large number of railroad corporations so as to give the roads as a whole a fair return on the investment. Two primary difficulties have been disclosed.

The first is the impracticability of the engaging but ill-conceived “recapture” principle, under which the excess earnings of certain roads would be turned into a common pool. All parties in interest, including the Commission, are in agreement that this scheme will not work, and the “recapture clause” has fortunately been repealed.

The second difficulty arises from the differing conditions that exist in different parts of the country and the variety of considerations that have to be taken into account in fixing rates. Between 1920 and 1980 the Commission made little, if any, use of its physical valuation data in the adjustment of the level of rates. The horizontal increase of freight and passenger fares in 1920 was, in fact, justified partly on the ground that a larger aggregate return was desirable; but the expected results were nullified by the industrial depression which shortly followed. The general reductions in rates granted in 1922 were not made with a view to decreasing excessive railroad earnings but in the hope that lower rates might increase traffic and revenue. Trunk line class rate advances in 1980 were based on the two-fold consideration of financial need and capacity of the traffic to bear some increase. The increases of 1981 were granted not in the thought that they would ensure a fair return on railroad properties as a whole but only as a means of forestalling bankruptcies, if possible.

Experience has also demonstrated that it is impossible to adjust rates from year to year so that all of the railroad systems of the country will enjoy stable earnings, with none obtaining excessive returns. The Commission recognizes “the great practical difficulties in attempting to maintain, even approximately, a constant level of railroad net earnings, regardless of changes of one sort or another in economic conditions.”⁶ There would be difficulties involved even if we had a single transporta-

⁶ 72 Cong. 1 Sess., *Railroad Legislation*, Hearings on H. R. 7116 and 7117 before the Committee on Interstate and Foreign Commerce, 1982, p. 14.

tion company for the United States as a whole. When we have a large number of independent companies operating under widely varying conditions the difficulty becomes an impossibility.

8. *Need of a flexible rate theory.* No single theory of rate-making can prove satisfactory when prices and economic conditions are fluctuating; and if prices and conditions do not fluctuate then it makes not the slightest difference whether the original cost or reproduction cost principle is utilized. In a period of rising prices the original cost theory protects the public from higher rates than are necessary to ensure adequate railway service; while in a period of falling prices the utilization of this principle prevents the public from procuring as low rates as might be obtained without handicapping transportation development.

Under no single principle of valuation can we escape the effects of the problem produced by general price fluctuations and by technological changes. The acceptance of either the investment or the reproduction cost principle as the sole basis of rate regulation would mean, for example, that owners of obsolete lines should now somehow be permitted a return upon the investment—computed on one cost basis or another.

We live in a world of constant change, and we must accordingly have a flexible theory of rate-making. What we want is a transportation system that will adequately perform the transportation service required at a given time, expand or contract to meet the varying needs of commerce, and also provide, in so far as possible, the stability which is required in the interests alike of shippers, investors, laborers, and the taxpaying public.

The rule of rate regulation recently suggested by the Interstate Commerce Commission merits endorsement. It reads:

In regulating the general level of rates, fares and charges, the Commission shall, among other things, be guided by the need for producing, so far as possible, revenues which will be sufficient for the maintenance of an adequate national railway transportation system; and also shall recognize the principle that the railroads may justly earn a surplus in times of prosperity as a safeguard against deficiencies in times of depression.

If the word "railway" be dropped, this statement would apply to the type of transportation system which we have discussed in the preceding section.

This suggested rule of rate-making allows for flexibility in administration, emphasizes the duty of the carriers to provide the most efficient possible transportation service, and recognizes the necessity of earning revenues sufficient to permit the roads to obtain the capital that is necessary for the efficient conduct of transportation. At the same time, it does not imply the indefinite maintenance of obsolete railroad properties or a level of rates out of line with the changing level of other costs and prices.

CORRELATION OF RAIL AND HIGHWAY TRANSPORTATION

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In the title of this paper the word "correlation" is chosen instead of the more commonly used word "co-ordination" because the latter word, in its principal meaning, connotes equality of rank or importance. The word "correlation" avoids the connotation of equality but otherwise the two words carry the same idea; namely, that of putting two or more things in mutual or reciprocal relationship. The two things in this case are railroads and commercial motor vehicles.

The railroads are now in their second century. The motor truck as an effective agency in the transportation of commodities is less than twenty years old. The period of effective use of the motor bus as a passenger carrier is even shorter, but since 1920 both the truck and the bus have had rapid and spectacular development. The railroads were slow in recognizing the potentialities in commercial highway transportation when the competitive threat first appeared, but they are now thoroughly conscious of its importance and further possibilities. The golden opportunity to use the new agency as a correlated supplement to the rails was allowed to pass. The policy of indifference left the field of motor vehicle development to others and the later efforts of the railroads to stifle the growth in highway transportation were as ineffective as they were shortsighted. Since 1928, a substantial part of the traffic, both passenger and freight, formerly monopolized in large part by railroads, has gone to busses and trucks, and the public reaction has been to extend a helpful hand in granting comparative freedom from regulation and generous terms for highway use, while at the same time continuing the full measure of regulation of railroads.

Passenger traffic by rail has been decreasing steadily. The rail passenger miles of 1932 were but 86 per cent of those of 1920. By far the greater part of these losses are the result of greater use of the private automobile but in absolute totals the passenger miles produced by busses, especially during the past five or six years, are impressive. The Interstate Commerce Commission in 1932 expressed the opinion that,¹ generally speaking, from 20 per cent to 80 per cent of the railroad passenger-mile losses have been to organized highway operations. The Commission estimated further that the ton-miles produced by intercity trucks in 1928 were equivalent to 4.7 per cent of the ton-miles produced by railroads. Since then the truck-borne tonnage, in proportion to rail-borne tonnage, has been steadily increasing, and is now equivalent to more

¹ "Co-ordination of Motor Transport," 182 I.C.C. 400.

than 10 per cent. The seriousness of the situation from the railroad viewpoint is even greater when considered in terms of revenue. The greater part of the lost tonnage is in merchandise and other high grade freight which take the higher class rates.

The main purpose of this paper is to suggest that while the early opportunity of bringing about effective and desirable correlation of the two agencies was missed by the railroads when its effectuation would have been surrounded by the minimum of difficulty, the desirability of such correlation is greater now than it was in earlier years. Even though the opposition to such correlation may now be more formidable than it would have been twelve years ago, before the truck and bus organizations had demonstrated their effectiveness, nevertheless, it is still possible to bring about correlation on a comprehensive scale. Such action would be beneficial to highway transportation as well as to rails, and would be in public interest.

The secondary purpose of this paper is to draw attention to the wide range of diversity in the policies of the several states in the nature and extent of public regulation of commercial highway transportation, the lack of agreement on principles fundamental to the determination of fair taxation or other charges for highway use, and the failure of the federal government to exercise in the field of interstate highway transportation the regulative principles enforced continuously and in growing degree upon railroads since 1887. A reasonable degree of uniformity in state regulation, agreement on a rational basis for the division of highway costs, and the extension of federal control over interstate traffic by highway as well as by rail, are all desirable ends in themselves. Preferably they should precede rather than follow the correlation of the two transportation agencies on a comprehensive scale.

The acid test to which all such proposals should be subjected is that of public interest. The public is interested in having at its disposal transportation that is economic, adequate, dependable, expeditious, and flexible. Public interest, moreover, requires that each agency of transportation shall have a true economic basis and that public policy toward each agency shall be equally fair. One agency should not be burdened by regulation and taxation relatively heavier than that imposed upon another. Public interest requires also that the agencies of transportation shall be progressive in the adoption of new improvements, so that the public may, in lower costs or better service or both, enjoy the advantages inherent in advancement in art and science. Public interest may, therefore, be served by a policy under which a new agency, with promising possibilities in certain services economically superior to the old, is encouraged during the early period of development. But, once beyond the experimental period, the new agency as well as the old should be re-

quired to justify continuation by competition on even economic terms. If, under reasonable equality, the newer form demonstrates its economic superiority it would be unsound public policy to attempt, for the protection of the older form, to stay the relentless forces of obsolescence and supersession. The forward-looking policy is not one of offensive struggle on the part of motor vehicles to cut deeper and deeper into railroad traffic, nor a defensive struggle on the part of railroads to hold down losses by wasteful competition and hampering the progress of the new competitor. The sound policy is one of correlation of the two forms and one of greater use of the new form within the organization of the old.

Correlation of rail and highway transportation as here contemplated means that railroads would be permitted, under appropriate legislation and adequate governmental supervision, to use trucks and busses as supplementary agencies on the public highways where such vehicles are more economical and provide a more flexible and otherwise better type of service than can be given by rails alone. It means that there would be universal adoption of the principle of collection and delivery of freight and possibly, if public demand therefor exists, door to door service for passengers. It means that many terminal operations now involving the movement of freight cars through metropolitan areas would be supplanted by truck service, thereby relieving railroad facilities, improving service in congested areas, and reducing costs and improving service on light-traffic branch lines. It would widen the zone of railroads by extending their highway service to sections, both urban and rural, not now directly served by rail. It would mean that through passenger trains would be relieved by supplementary highway service of some of their local stops and thereby enabled to make the through run in shorter time and with a more even load; and that in freight service the concentration of small shipments at transfer points, and the dropping and picking up of tonnage at local stations, would be done better by trucks than by the slower and more expensive way-freight trains. It does not mean, however, that the railroads alone would control commercial highway transportation. The highways would still be open to independent operators who would, on even terms of regulation and taxation, act as a competitive check on railroad service.

While this paper deals only with the correlation of rail and highway transportation, such correlation ideally should go further. It should embrace air and water transportation as well, assuming here, as in highway transportation, that there would be adequate regulation by governmental authority. The desirable development is to get away from uneconomic waste in the unnecessary duplication of facilities and service, and to create unified transportation companies instead of separate rail-

road companies, truck companies, bus companies, air line companies and water line companies, each competing not only with rival agencies but also with each other. Public interest would be protected by competition between each of the small number of co-ordinated transportation systems in each region, as contemplated in the Interstate Commerce Commission's plan for consolidating railroads. Under such correlation of the several agencies within the one transportation company, and the stimulus of competition between the companies in each of their several departments, there should be no retardation of further development in any single agency, such as motor vehicles, when the economic or social desirability is clear. On the other hand, the present uneconomic struggle of the railroads to hold to the rails local traffic which the motor vehicle can handle better and at lower cost, and the uneconomic efforts of the motor vehicle operators to capture a larger and larger part of long-distance traffic which the railroads can move as quickly and at lower cost, would be avoided. In the long run the general public must pay the cost of uneconomic transport even though a few shippers may directly benefit for a time when the competitive struggle of the two types of transportation leads one or both into cutting rates below the cost of service.

Here and there throughout the country we find examples of correlation of the kind here advocated. Collection and delivery of freight, long a successful practice in England and Canada but held back here because of inertia and false fears of complications, is now well established. Here and there also we find examples of economic use of trucks and buses as substitutes for local trains in metropolitan areas and for all trains on unimportant branch lines. But by and large the possibilities have been realized in but small degree. On the one hand, we find progressive managements with forward-looking ideas on correlation and, on the other hand, we find an even greater number of railroad executives who vigorously oppose "entangling alliances" of any kind with highway transportation.

For those who hold this negative viewpoint there is this to be said. Believing, as they do, that highway transportation under present conditions is not only relatively free from regulation of the kind imposed on railroads but is also enjoying subsidies in the use of public highways at less than full cost, they assert that the competitive relationships are unfair and that it is unwise to talk of correlation until the competitive inequities have been corrected. In the meantime their energies are concentrated upon the struggle to induce the state legislatures and the federal government to enact drastic regulation to curb the effectiveness of highway competition. They believe that under an equal degree of regulation, and a requirement that commercial vehicles shall pay their full share of the highway costs, the railroads should be able to take

care of themselves competitively without engaging in highway transportation.

These and related statements merit examination. The public is confused by propaganda from both sides. Much of it is a mixture of truth and half-truth, and of argument sound, partially sound, and unsound. Unfortunately the scarcity of incontrovertible fact, and the ease with which the meager factual data may be bent to serve partisan arguments, bring about a situation in which the "man on the street" is bewildered and the qualified student of economics has difficulty in ascertaining the truth.

The confusion in the situation is the result of a combination of lack of a national policy in highway construction and of adequate information in such items as true highway costs and the effect of commercial traffic on construction standards and maintenance expense.

As to the lack of a national policy, it may be noted that we have not as yet decided whether we should build the highways for the vehicles or whether we should design the vehicles for the highway. The diversity of state regulations in such matters as maximum dimensions and weights of large vehicles, and the constant changes in these maxima, leave the highway authorities without adequate information upon which to determine highway construction standards, and likewise force the motor vehicle manufacturer to take chances on the design, weight, and capacity of vehicles for tomorrow's use. The maximum allowable length of truck-trailer combination ranges from thirty-five feet to eighty-five feet and the maximum gross weight from ten tons to approximately sixty tons. A similar diversity appears in the bases for registration fees, gas taxes, and other taxes and charges. On a common carrier three-ton truck of assumed characteristics, the range in total annual fees and gas taxes in 1931 was from \$156 in New York to \$1,272 in North Carolina. The arithmetical average of the seven lowest states was \$224. For the seven highest states it was \$942.² This wide range in fees and taxes is influenced, of course, by differences between states in the needs for funds for highway construction and by the density of traffic, but it is the result also of variations in policy. These are not surprising in view of the fact that there is as yet no agreement on fundamental principles. We may here mention a few which are highly controversial.

First to be mentioned is the lack of definition of true highway cost. There is difference in opinion as to whether construction expenditures should be taken as the actual cash outlay in a given year or whether such cash outlays should be amortized over the estimated period of service life. There is no agreement as to what should be taken as the service

² *Taxation of Motor Vehicle Transportation*, National Industrial Conference Board, 1933.

life of pavement, subgrade and other elements, nor as to whether expenditures for administration and policing should be included. Here and there we find those who suggest that interest charges should include not only the actual payments on bonds and notes but as well a charge for the use of the capital investment in highways as they stood when their use by motor vehicles began.

Next, there is the moot point of weight to be given to "community use." Before the advent of motor vehicles there was no suggestion, except in the case of toll roads and toll bridges, that horse-drawn vehicles should be subjected to special taxation. The entire cost of highway construction and maintenance was a charge against the community and was paid out of funds derived by general taxation. As these costs became greater, because of the higher highway standards required by automobiles, the principle of special taxation, in the form of registration fees, was employed. Then came the imposition of the gas tax and greater refinement in registration fees, differentiation between private vehicles and those operated for hire, and special taxes graded according to vehicle-miles, ton-miles, and gross or net earnings. The process of refinement or elaboration was greater in some states than in other states, each attempting to find its individual solution. The result is forty-nine fairly distinct varieties of motor vehicle special taxation.

It would not be unreasonable to expect that in the formulation of at least one of these forty-nine codes the regulatory authorities would have found a reasonably adequate and scientific solution to the problem of division of costs. Such, however, is not the case. No regulatory body in this country has yet decided in principle what part of highway costs should be assumed by motor vehicles and what part should be assumed by the general public for community use—national defense, police and fire protection, transportation of mail, and thoroughfares for pedestrians, horse-drawn vehicles, and livestock.*

The next problem is that of dividing the motor vehicle part of such cost among the several classes of vehicles and among the types and sizes in each class. From the physical viewpoint there are three definite classes, the passenger automobile, the bus, and the truck. Each of these three classes may, from the economic and social viewpoints, be subdivided into two general classes—those used for social or other private purposes and those used "for hire." The "for hire" vehicles may

* That subject is discussed at some length in the report of the Royal Commission on Transport in Great Britain presented to Parliament in December, 1930. In the opinion of the Commission one-third of the cost of the highways should fall on the general taxpayer and two-thirds should be borne by the motorist. In the report of the Royal Commission on Railways and Transportation in Canada, September, 1932, the opinion is expressed that a fair proportion chargeable to motor vehicles would be two-thirds of the total cost of highways in urban areas "while in the more undeveloped districts the proportion might be increased."

further be subdivided into common carriers (those who offer to serve all who may apply) and contract carriers (those who serve a few customers under contract). The line of demarcation between common and contract carriers is not clearly defined, nor, indeed, is that between the private and the "for hire" vehicle. A substantial number of private automobiles are used to transport "paying guests." The farmer-owned truck is essentially a private vehicle. One owned and used by a manufacturing company to distribute its own products comes also within that classification but it may perform exactly the same service as a "for hire" truck engaged by that company to meet a part of its highway transportation needs. A substantial proportion of so-called common carriers by highway are quasi-contract carriers. Their capacity, unlike that of the railroad, is not sufficient to serve all who may apply and in effect such operators in some degree choose their customers and commodities. Similarly, a substantial proportion of self-classified contract carriers are really common carriers, inasmuch as they serve more than a few contract customers, soliciting tonnage whenever the opportunity offers, and carrying the load under whatever rate the trucker can get. Many of the so-called private carriers supplement their private service by performing for others on a "for hire" basis. Then there is the highly disturbing factor of the itinerant merchant-trucker who purchases coal or fruit and other produce at the mines or the farms and, as a private operator, transports it to market for sale.⁴

These difficulties in classification complicate the problem of division of cost between vehicles. One theory for such a division is that the private vehicle, not used "for hire," should pay less for highway use than a similar vehicle operated to make a profit from transportation. The latter, to an extent, is using the public highways as a place of business and should pay for that special privilege as well as an amount additional to that assessed against the operator of the vehicle used privately. Such a theory is recognized in about one-half of the states.⁴ Where a differential exists against the commercial truck it is empirically set and each state has a different conception as to what the differential should be.

A similar lack of uniformity exists in distributing the burden of taxation between vehicles of different weights or capacities in the same classification. A study of registration fees for trucks of various capacities reveals no common formula. In this respect, as in nearly all other elements in motor vehicle taxation, the underlying idea of each state seems to be to charge not what the vehicle cost the state in highway

⁴ The study of the National Industrial Conference Board shows that for a three-ton truck, under assumed uniform conditions of operation in thirty-seven states, in 1931, the average registration fees and gas taxes were \$332 when used privately, \$390 when used as a contract carrier, and \$521 when in common carrier service.

expenditures but someone's conception of what the owner of the vehicle will pay without open revolt.

One of the greatest difficulties in the whole situation is that of agreeing upon the standard for a highway suitable for the private automobile and the standards and additional costs of highways suitable for vehicles of greater weight. These are engineering questions. It is reasonable to assume that a body of competent and impartial engineers could work out a formula that would be rational and scientifically sound but the substantial differences between states in climatic conditions, character of subsoil, and traffic volume are such as to furnish those who object to standardization with arguments against such action. Then, too, there is the important fact that under present conditions the improved highways are a surprisingly small percentage of the total highways. Of the total miles of rural highway, less than 12 per cent are included in the state highway system. The remaining 88 per cent are in the county and township systems. Of the total rural highways, less than 5 per cent are equipped with high-type surfacing and less than 20 per cent equipped with low-type surfacing. The problems of increments of cost for additional thickness of pavement apply, therefore, to not more than one-quarter of the total rural highway system.

Last to be mentioned in this summary of diversity and confusion in state policies is regulation of the issuance of licenses to operate and of rates to be charged by "for hire" operators. On one point there is uniformity. The operator of a private vehicle may operate at will, provided he pays the registration fees, keeps within the dimensional and weight maxima, and observes all measures affecting safety. Ordinarily the "for hire" operator must comply with other requirements ranging from a permit, easily obtained as a matter of right, to a certificate of public convenience and necessity, issued, after hearing, in the discretion of the regulatory authority. There are wide variations in the degree of such regulation in the several states.

All of the foregoing discussion pertains to state regulation. As yet the federal government has not invoked its powers over interstate highway transportation, although efforts to clothe the Interstate Commerce Commission with that authority were almost successful in the last two sessions of Congress. The Commission itself advocates federal regulation of busses but is reluctant, until it has had experience in bus regulation, to assume similar jurisdiction over interstate common carrier trucks. Under present conditions the states are circumscribed in their control of interstate vehicles and we have an anomalous situation in which two vehicles, one intrastate and one interstate, alike in all respects as to physical factors and nature of service, but subject to different degrees of regulation.

The foregoing recital of the many controversial elements and lack of uniformity in regulation and taxation of motor vehicles may seem to be out of place in a discussion of correlation of rail and highway transportation. Nevertheless, these things have a definite relation to correlation because the desirable degree of correlation may be much more readily achieved and will be more clearly in public interest when there is in governmental policies toward motor vehicles a closer approach to uniformity and consistency in regulating those things which, with respect to railroads, are now effectively regulated, and in a basis for special taxation which will achieve the desired end of requiring commercial motor vehicles to pay their fair share, but no more than their fair share, of highway costs. Correlation cannot be effectively achieved if one form of transportation is regulated in substantially greater degree than the other agency, nor if one agency has to assume the entire costs of its service on its own right of way and the other agency is granted the use of public property on unduly favorable terms. A reasonable degree of equality in both items is a highly desirable condition precedent to comprehensive correlation in public interest.

Correlation between rail and highway transportation would be of benefit because it would enable the railroads, as transportation companies rather than as railroads, to offer complete transportation service and thus to correct the present unsatisfactory situation in which the shipper in most cases must deal with two agencies. Because of the elimination of uneconomic duplication and overlapping of the two agencies, the public would be given a superior service at lower cost. Furthermore, correlation, especially if preceded or accompanied by an extension of highway regulation and a proper revision of taxation, would place the legitimate operator in a stronger position to meet the unfair competition of the irresponsible itinerant merchant-trucker who is now demoralizing the trucking industry as well as dealers in many commodities.

It is hardly necessary to say, in conclusion, that these benefits to the transportation agencies would not justify correlation unless it would be of benefit also to the public. That it is in broad public interest is clear when the advantages and disadvantages are compared. There would undoubtedly be opposition growing out of the belief of a part of the public that the continuation of independent status for highway transportation organizations would serve as an effective competitive curb upon railroads, and that comprehensive correlation might partially restore the railroads' former monopolistic position. Such opposition is likely to be strongest from the industrial traffic managers whose selfish interests are served better by the present conditions of unstabilized rate structures and cutthroat competition, especially between the truckers

themselves. It would be natural to encounter opposition from the smaller organizations of both busses and trucks who would prefer independence and would object to becoming a very small part of the larger organization. It is obvious, of course, that if duplication and overlapping are to be reduced, the net effect would be to employ fewer motor vehicles and a smaller number of men.

Against these objections may be placed the larger public benefit in a higher quality of integrated transportation service at lower economic cost in a stabilized rate structure, and the greater assurance that, looking forward to better times, the nation would have an adequate, dependable, and efficient national transportation system. Public interest in the maintenance of a reasonable and economic degree of competition would be safeguarded by the continued use of the highways by independent motor vehicle operators and by adequate governmental regulation. Under the plan of the Interstate Commerce Commission, or any other similar plan for railroad consolidation, there would be a reasonable competition between the large systems in each region. Such competition between the correlated transportation companies should result in developing, as a part of each system, each of the two instrumentalities of transportation—rail and highway—within its zone of economic effectiveness and responsiveness to public preference, and should do much to bring about the elimination of economic waste resulting under present conditions from the duplication and overlapping of facilities and service. To quote from the findings of the Interstate Commerce Commission in its 1932 report on Co-ordination of Motor Transportation: "Unrestrained competition is an impossible solution of the present transportation problem and is incompatible with the aim of co-ordination under regulation."

DISCUSSION

J. M. BARRIGER, III.—Professor Cunningham's excellent paper succinctly states the case for correlation of rail and highway transportation and, in so doing, develops important aspects of the question of regulating motor transportation. In considering the complex and dissentious subject, I have believed that it is important to emphasize that the fundamental necessity for regulating all forms of inland transportation arises from the joint cost nature of the enterprise.

The major expenses of transportation are incurred regardless of whether a maximum or minimum quantity of the service is utilized and when any minimum unit of service is performed an additional potential, but unused, service is also produced. If the latter can be sold for anything at all, be it only one cent, it represents a gain of that much. Such fundamental conditions, if unchecked through proper regulation, quickly lead to cutthroat competition, which is equally destructive to the transportation industry itself and demoralizing to all users to whom reasonable stability and uniformity of tariffs is essential to orderly conduct of their business.

This fundamental "joint cost," characteristic of inland transportation, makes unregulated competition inevitably destructive. The ruinous effects are quite as serious to general business as to the carriers themselves. Transportation is a principal cost factor in all industrial activities, and, under state of unregulated rates, the tariff discrimination obtained by the limited number of shippers situated in a position to benefit from the cutthroat competition becomes economically demoralizing to all industry.

It was to bring order out of such a chaotic situation that Congress first created the Interstate Commerce Commission and gradually strengthened its powers. A uniform, published, non-discriminatory rate, approved by the regulatory commission as fair to all parties, is the basis of any system of inland transportation which can foster the general economic welfare of the public, its patrons, and itself.

Rates must be made from a broad, national viewpoint. All carriers must be uniformly subject to the tariffs prescribed, because rates are a matter of vital importance to the economic welfare of communities, industries, and individuals. There is ceaseless controversy over rates by those striving to improve their relative situation, and while the existing tariffs probably are not regarded as ideal by either the Interstate Commerce Commission, the users of the railways, or the railroads themselves, there can be no doubt that the basic necessity of the uniform, non-discriminatory, published rate must be protected against all attacks of unregulated competition.

With what has been said of the "joint cost" nature of railroad service, what could be the result to the Southern Pacific if it should be required to obtain Interstate Commerce Commission approval of its rates, publish and adhere to them, while its rival, the Santa Fe, did not have to publish rates or obtain Interstate Commerce Commission approval of charges and, instead, could name any rate which it desired and vary all tariffs at will, bargaining with each shipper for whatever rate would obtain competitive tonnage? The unfair

handicap to the Southern Pacific, and the demoralization of the entire rate structure which would follow, are too obvious to require comment.

Unregulated motor transport is an exact parallel.

To develop a great continental nation such as the United States, it has been essential to overcome the obstacles of distance to the fullest possible extent. That is, of course, the very purpose for which the railway network has been developed. However, merely providing transportation facilities is only the beginning—a rate structure had to be developed to foster the basic purpose.

Rates had to be made to permit the nearby and the distant producer to compete in the same market. To do this, the "postage stamp" principle of rate-making has been followed, as far as practicable, whereby rates, as nearly uniform as possible, are made on commodities to all markets from every competitive source which has economic justification to reach it. Had this not been done, a great continent could not have been developed, and industrial and agricultural activity would be concentrated into very limited areas instead of being widely diffused.

Such a principle of rate-making has been of paramount importance to our national economic growth. It has resulted in extremely low long-haul and average rates per ton-mile, but has necessarily resulted in high short-haul rates per ton-mile. Short-haul rates are high, in order to conform to an essential economic principle without which distant centers of production cannot be developed, and not because the railroads cannot carry short-haul traffic at lower rates per ton-mile.

The economic progress of the United States proves that this rate-making practice is eminently sound, practical, and effective, but high short-haul rates enable the motor trucks, inherently high cost producers of transportation (except in limited fields) to capture all of the short-haul and much of the intermediate distance freight, not because of fundamental economy, but because of its privilege to name any rate that will get the business, while the railroad must adhere to the published tariff—a case exactly parallel to the suggested instance of the Southern Pacific being bound by present rate regulation with the Santa Fe free to do as it may choose. Trucks are joint cost producers, just as railways; hence this analogy is correct.

It costs trucks around five cents per ton-mile to produce freight transportation service. Railroads sell their service at an average of one cent per ton-mile. However, due largely to the rate-making principles previously stated, short- and intermediate-haul rail rates average above five cents per ton-mile, and the steam lines, being held rigidly to their published fares, are unable to meet the truck competition which can charge whatever price will obtain the business. The railroads cannot materially reduce short-haul rates, because this would remake the economic map of the United States and wipe out many present centers of production.

Potatoes come to the Atlantic Seaboard cities from upper New York State, New Jersey, Maryland, Virginia, North Carolina, Maine, Michigan, Wisconsin, Minnesota, the Dakotas, and Idaho. Potatoes are a very bulky article and have a low value per unit of weight; hence, freight charges

are a major factor in determining markets. If potatoes from the nearest areas of production have any undue advantage in the matter of freight rates, no other states can market potatoes in the East, and the Western potato-growing areas serving Eastern markets will be economically paralyzed. Rail rates have been established to give access to New York for potatoes from many states, and it is inevitable that the short-haul rates are fairly high on a per-ton-mile basis. Trucks take advantage of this condition to undercut the rate a little and take the business. The railroads could name potato rates remunerative to themselves so far below the trucking costs that the lost business would be regained, but these reduced rates, which could not be made effective for long-haul traffic, would embargo distant producing centers and thereby undevelop the country.

It should be noted in passing that the potato growing states of Michigan, Idaho, the Dakotas, and Minnesota are represented in the Congress by highly vocal Senators who would have much to say regarding change in rates, barring their constituents from markets to which the latter's products now move freely.

The trucking interests know that the railroads will not and would not be allowed to readjust the relative rates to the disadvantage of long-haul traffic, so the former desire, by one excuse or another, to insure the continuance of present unfair advantage by attempting to convince the public that trucks could not, or should not, be subjected to regulation. This condition, in a "joint cost" operation, gives an overwhelming and economically destructive advantage against a competitor respecting a published rate, and permits the trucks to secure much traffic where they are the high cost producer of the service, and at the same time requires increased public expenditures (over and above the motor trucks' contribution) to build and maintain highways.

Dr. Moulton has presented a remarkably complete and concise summary of varying basic economic forces which have shaped the development of the carriers throughout the several distinctive epochs of their history. As a director of research of the National Transportation Committee, Dr. Moulton prepared a memorable volume, *The American Transportation Problem*, which is a veritable encyclopedia of complete and authoritative information on nearly every controversial phase of transportation. Based upon the exhaustive record and investigation of Dr. Moulton, the National Transportation Committee gave expression to conclusion No. 1, as follows:

(1) Parallel lines and systems are wasteful and unnecessary. Regional consolidations should be hastened and, where necessary, enforced, looking eventually to a single national system with regional divisions and the elimination of all excess and obsolete lines and equipment. Neither holding companies nor any other device should be permitted to hinder consolidation or evade the letter or the spirit of regulatory law.

Dr. Moulton has reaffirmed that conclusion today, and in so doing I believe as set forth the *sine qua non* of an enduring solution of the railway problem.

The railroad problem is entirely a matter of improving service and lowering rates in relation to the general price level, while fulfilling the responsibility to pay employees an adequate wage and capital a fair return. The solution is obtainable through efficient railway operation, which is by no means

an easy task even in times of satisfactory business conditions. In the present period of extreme traffic curtailment, it is a task of tremendous difficulty.

The most economical conduct of transportation is a problem in applied physics. The physical characteristics of a railroad, that is, distance, grades and curves, establish the amount of work which must be performed to move each ton of train weight between initial and final termini. The economy with which this pre-established amount of work can be performed is dependent upon the character of the transportation facilities provided. There are marked differences in these two basic determinants of cost and service between the several divisions of any system and between individual railroads. It has been proved that great economy and improved service are obtainable through concentrating the tonnage on lines selected because of superiority of physical characteristics and general standard of development.

The changing purposes which railroads serve, and the requirements exacted of them, necessitate constantly improving plant and facilities and technique of operation. Technical development and service improvements on our railways are widely heralded, but such advances always require concurrent evolution of the corporate structure of the properties in order not to retard operating progress. It is quite apparent that had railroads not amalgamated into great systems, but had remained as myriad, separate, and independently operated lines, their development would have been stunted and much of a century's marvellous history of railroad development would have been lost. It is self-evident that railroad amalgamation has been of great national service.

We are on the threshold of another great era of rail transportation development. Once again the corporate structures and scope of operations will have to be enlarged to permit it, and for the same basic reasons that necessitated such transitions in the past; i.e., the physical development of the properties and the change in operating technique to be made possible and effective must have such broad territorial scope as to entail intercorporate effect. This necessitates consolidation, in order to insure unified control and equal justice to the security holders of constituent lines, which is a condition precedent to successful expansion.

While railways have long been conducted on a basis that might be termed a "large-scale operation," "mass production" of transportation, which is the basis of present and prospective economies, is a product of comparatively recent technical development and improved administration.

The improvement in operating technique supposed to result from the competitive effort of many separate lines striving with each other for preference and greater efficiency, is more than outweighed by the resources of the larger systems for developing their transportation machine. The size of the smaller companies, in the very nature of things, limits their possibilities. Moreover, the smaller companies are not financially able to carry on research and experimentation to the degree possible for the principal systems, and are less able to scrap and write off large items of property which become obsolete, and thus represent the cost of progress.

Prior to the World War, the character of the then standard equipment and facilities permitted a line of moderate density to operate at approxi-

mately the same unit cost as ones of heavier traffic. However, the recent development of super-power locomotives, car retarders, central traffic control, improved shop machinery, and a host of related devices, results in increasingly wide divergence between the unit cost of conducting transportation on a large and on a small scale.

The solution of the railroad problem demands a recasting of routing of traffic in such a manner as to concentrate movement on a minimum of main line mileage, selected because of its superior facilities and physical characteristics, and subsequently the development of such lines to the maximum peak of perfection within the limits of proper balance of new capital investment to traffic density. This requires the complete integration of the operations now conducted, necessarily without co-ordination because carried on by independent companies. The interests of security holders can best be protected through a corporate merger, in order that the future return to the investor will be secured by the financial results of the system as a whole, and not by the actual usage made of any individual constituent property.

If our present depression was a result of overproduction, I would heartily agree that anything, such as consolidation of railroads, that tended to diminish employment per unit of service produced was detrimental, but overproduction has never existed and can never exist until goods and services are without value or utility to anyone, even if given away. The fact that goods exist which cannot be sold does not mean that there is overproduction, but that the distribution mechanism is faulty. To cut down on production, either in total or per individual, will merely further disorganize the distributive mechanism and make the problem worse, rather than help solve it.

Transportation is a distribution cost. The one way we could banish the depression quickest for everyone concerned, and immediately give all people jobs, is to reduce distribution costs to zero. Production costs can always be absorbed in willing markets. The breakdown comes in distribution costs, which restrict markets. Ask the farmer about this! Sometimes it helps to get a better perspective if we carry our argument to the *reductio ad absurdum*. Let us do it in the case of railway transportation. It takes approximately one million men to run the American railways, with present traffic. Do we want to take two million or ten million or one hundred million men to do this work? If so, would the ideal not be reached by tearing up all the railway tracks and moving the freight by wheelbarrows? On the other hand, would it not be advantageous to have the American railways run automatically, without any labor and without any expense, if the latter were possible? Passing on the economies of such a transformation to the public would instantly create markets for all the goods that this country could possibly produce, and the million or two million men employed on American railways could be re-engaged for the expanding production of industry at wages representing a standard of living far higher than American railways can pay.

I say, unreservedly, that when we work, and when we tend to run American railways at lower and lower cost, we are not putting men out of work, but we are helping to establish an economic balance in distribution, which is vital to the welfare of the country. If we desired to double the number of

men that work on American railways, and hence double their cost of operation, I think you could completely prostrate the business and finance of this country. On the other hand, I believe if we could cut the cost of running American railways 40 per cent, there is nothing that is within the power of the nation to do that can have such an instantaneous vitalizing effect on American business.

JULIUS H. PARMELEE.—These papers, by Dr. Moulton and Professor Cunningham, have interested me greatly, because by different approaches to the problem of a national transportation policy, they arrive at a common conclusion. The conclusion is, in effect, that the same economic principles should be applied to all agencies of transport. Both papers emphasize the need of a broad transportation policy, rather than one dealing only with railways, or highways, or waterways.

Dr. Moulton says: "All forms of transportation must be placed on a basis of economic parity or equality." He then proceeds to define his basic principle in terms of financial aid from the government, of taxation, and of uniform regulation.

Professor Cunningham says: "Public interest requires that each agency of transportation shall have a true economic basis and that public policy toward each agency shall be equally fair. One agency should not be burdened by regulation and taxation relatively heavier than that imposed upon another."

With these principles, whether stated in one form or another, there will be no disagreement. Differences arise only when we interpret what each of us may mean by the words "economic parity," or "true economic basis."

My discussion of the development of this fundamental concept by the two speakers must of necessity be very brief.

Dr. Moulton points to the great excess of transportation capacity that exists today in the United States, and lays down the economic principle that traffic should move by that agency which can handle it at the lowest actual cost, all elements of cost considered. Professor Cunningham adds the elements of adequacy, dependability, speed, and flexibility.

Dr. Moulton applies this general principle to the several agencies, and reaches the conclusion that water traffic is largely subsidized by public funds, and that traffic over the highways is subsidized in part.

If I comment somewhat critically on certain features of Dr. Moulton's analysis of the highway problem, it is not because I disagree with his fundamental doctrines. On the contrary, he has performed a real service in isolating and scrutinizing the elements of that complex problem. He calls for regulation of highway traffic, and for an economic basis for taxation of the commercial motor vehicle. His conclusion as to motor vehicle taxation bears repetition here: "Not until the proceeds of gasoline taxes and license fees exceed the capital and maintenance charges on the highways borne by the state will they be contributing anything to the general support of government." In other words, special motor vehicle taxes, so-called, are not taxes at all, but are a form of fee or toll for the use of the public streets and highways.

Whether these fees or tolls are sufficient, especially as regards the commercial motor vehicle, to meet their proper contribution to street and highway costs, is one of the highway problems to which I cannot devote time here. But I do take issue with Dr. Moulton's assertion that in 1930 the income from special motor vehicle fees and taxes levied against the users of state highways covered approximately 80 per cent of the costs assignable to state highways. What he means, in my opinion, is that of the special levies paid by all motor vehicle operators, a considerable proportion was arbitrarily allocated to the state highways, and that that proportion supplied a major part—although probably not so much as 80 per cent—of the cost of state highway systems. Now, the terms, "all motor vehicle operators," as I have used it, and "users of state highways," as Moulton uses it, are two very different things. These fees and taxes are paid by all street and highway users, not by users of the state highways only, and it has been estimated that one-half of the total motor vehicle miles are operated within city limits, and one-third of the remaining one-half on local and county roads. What we have, then, is a levy against millions of operators on city streets and local roads, the proceeds of which are diverted to the improvement and maintenance of state highway systems.

While Dr. Moulton points out that only 20 per cent of the cost of local roads is met by the highway user, he makes no mention of city streets, which derive little benefit from motor vehicle taxation, and which are improved and maintained almost wholly by general property taxation, but over which, at the same time, one-half of the motor vehicle mileage is operated.

In his analysis of the taxation of the several transport agencies, Dr. Moulton states that property and income taxes on motor vehicle companies are levied in accordance with the same principles that govern the taxation of other types of property and business income. He seems to have overlooked the fact that in some states motor vehicles are not required to pay a personal property tax.

Turning now to a brief analysis of Cunningham's discussion of correlation of rail and highway transport, we find him emphasizing the present confusion of thought and diversity of practice in dealing with motor vehicles and with highway costs in our forty-nine state jurisdictions, and the great need for uniformity of treatment, both state and federal. No one who has tried to digest existing statutes on motor carrier regulation and taxation will disagree with him. In a survey of motor vehicle transportation recently issued by the Bureau of Railway Economics¹ effort was made to summarize the diverse practices of the several states, but the effort proved almost hopeless. We need clear and logical consideration of the whole problem, and we need a reasonable uniformity of approach and treatment.

With only one finding of Professor Cunningham would I disagree. He rather insistently criticizes the railways for failing to foresee the potentialities of highway transport and failing to apply measures of correlation. The answer, as I see it, is that until highway transport is brought under

¹ *An Economic Survey of Motor Vehicle Transportation in the United States*, Bureau of Railway Economics, Bulletin 60, November, 1933, p. 219.

regulation essentially equivalent in its way to that of railways, there can be no real correlation. Oil and water cannot be made to mix. Professor Cunningham himself recognizes this fact when he says: "Correlation cannot be effectively achieved if only one form of transportation is regulated in substantially greater degree than the other agency. . . . A reasonable degree of equality is a highly desirable condition precedent to comprehensive correlation in public interest."

In closing, let me repeat my belief that these two papers have laid down for us a sound basis for our transportation policy, and that what we now need is to translate theory into practice, principles into action.

D. PHILIP LOCKLIN.—Professor Cunningham has given us a picture of co-ordination—or correlation—of rail and motor transportation through the use of motor vehicles by railroads. He visualizes the existence of large transportation companies, as distinguished from railroad companies, utilizing whatever form of transportation is cheapest or best in a particular situation. Thus Professor Cunningham's concept of correlation is largely one of joint rail and motor service performed by a single organization. But co-ordination—or correlation, if you prefer that term—must mean more than this. In its broadest sense, co-ordination implies that each form of transportation will occupy its proper place in the transportation system. This place will be determined by comparative costs and the relation of the service offered to the needs and desires of the public. Professor Cunningham apparently recognizes this when he says that each agency of transportation should have "a true economic basis," and that the older form of transportation should not be protected where the newer demonstrates its economic superiority.

If we look at co-ordination in the broader sense, the question arises whether Professor Cunningham's proposal would facilitate the process of fitting the two forms of transportation into their legitimate places. In large measure, Professor Cunningham's proposal does contribute to the desired end. The substitution of motor-vehicle service for more costly rail service is in furtherance of the objective sought. So likewise is the use of motor vehicles in terminal operations, for store-delivery, and in the extension of service to off-line points.

Two queries may be raised, however, regarding the adequacy of Professor Cunningham's proposal to bring about true co-ordination in the sense of fitting each transportation agency into its proper place. First, there are many situations in which it would not be in the interest of a railroad to develop motor transportation service, even if that service resulted in cheaper or better transportation to the public. Where railroad facilities are already in existence and are operated with some degree of profit it may be in the interest of the railroad to protect rail traffic by refusing to develop motor transportation which will divert traffic from the rails. Or the railroad may maintain motor vehicle rates and fares on the basis of rail rates or higher rather than on the basis of motor-vehicle costs. Here the interest of the railroad is in the suppression or incomplete development of the newer form of transportation regardless of its economic justification. In such situations, the railroads have, in the past, opposed the granting of certificates of convenience

and necessity to bus or truck operators. In other cases they have succeeded in getting bus or truck rates placed on the basis of rail rates or higher, regardless of costs of motor-vehicle transportation. Opposition to the complete development of motor-carrier service is not removed, in such situations, by permitting the railroad to give truck or bus service if it wishes to do so. It may prefer not to give such service; or it may give enough service to lend plausibility to the claim that certificates of convenience and necessity should not be granted to independent bus or truck operators; and even if it gives adequate service, it may prefer a policy of keeping rates as high as possible. In making this statement we are not unmindful of the fact that under some conditions it may be a justifiable practice to protect the railroad from motor-vehicle competition. This is often true when there is insufficient traffic to support two systems of transportation and the railroad can provide a service that the motor carrier cannot. But what we are objecting to is action which may put the railroad in a position to hamper the development of motor transportation regardless of whether the restriction of the service in the particular case is justifiable from the public viewpoint.

The second query about Professor Cunningham's proposal relates to the matter of competition. He suggests that general participation by railroads in motor-vehicle operations would "bring about the elimination of economic waste resulting under present conditions from the duplication and overlapping of facilities and services." Undoubtedly this is correct in so far as the railroads used motor vehicles as a substitute for more expensive rail services. But Professor Cunningham also takes the position that the railroads are not to have a monopoly of transport for hire over the highways, but that competition of independent motor vehicle operators would continue to exist. This means not only that there would be competition between railroad-owned motor vehicles and independently owned motor vehicles, but that there would also be competition between motor vehicles and railroads. This may still result in a great deal of economic waste and duplication of facilities. Neither is such competition always consistent with a co-ordinated system of transportation in which each agency occupies the field for which it is best adapted. Of course there are many people who believe that the railroads and the motor vehicles will find their proper places in the transportation system if free competition is permitted. They believe that if the element of subsidy to motor transportation is removed, and if conditions of competition are equalized by removing some of the restrictions imposed upon railroads which hamper them in their efforts to meet motor competition, the two forms of transportation can be left to fight it out, and that each will eventually withdraw to the fields of operation in which it is superior. There is little warrant for such a belief. Unrestricted competition, in addition to the economic waste and duplication of facilities which it would cause, would deplete the revenues of both agencies of transportation. The railroads, by putting competitive rates on an out-of-pocket-cost basis would invade the field better occupied by motor vehicles; and, to a lesser degree, motor carriers would endeavor by similar tactics, to invade the field of operations in which railroads are naturally superior. It seems possible that this sort of competition

might still exist under Professor Cunningham's plan. Attempts to bring about a truly co-ordinated system of transportation must face this problem.

In conclusion, Professor Cunningham's proposal would result in greatly improving railroad service, and in increasing railroad traffic and revenues. It would eliminate waste in so far as the railroads substituted more efficient methods of operation for present methods. But before a truly co-ordinated system of transportation is attained, two other matters must be dealt with; namely, a tendency, in some situations, for railroads to hamper or restrict the proper development of motor transportation, and the tendency for the two forms of transportation to engage in competition that approaches the cutthroat type.

G. LLOYD WILSON.—Professor William J. Cunningham, in his well-considered paper, "Correlation of Rail and Highway Transportation," discusses several questions of paramount importance which must be settled judiciously if the evil and inevitable consequences of undue and uneconomic competition between railroads and the carriers by highway are to be averted. Many of these unfavorable effects have already been felt by the carriers and by the public, but the worst is yet to come if the situation is not clearly faced and courageously met.

The first point which should be noted is the use of the word "correlation" in discussing the ideal in railroad-highway relationship, instead of the word "co-ordination" which has been extensively used in the past decade in discussing ways and means of bringing about order out of the uneconomic chaos. Professor Cunningham avoids the use of the term "co-ordination" for the same reason that the present writer prefers to use it—because of the connotation of equality in rank and importance. It is freely conceded that the railroads far exceed the common and contract motor freight carriers, judged by the number of tons of freight transported and by the number of ton-miles transported in line-haul service. In the field of passenger transportation the railroad has a less definite but still undeniable claim to leadership in the number of passengers carried and in the number of passenger-miles of transportation service performed in intercity operations. If, however, the volume of freight traffic transported in the terminal between depots and the places of business of shippers and consignees is considered, as it should be, the importance of the motor carrier in our transportation system becomes increasingly manifest. If the number of passengers transported and the number of passenger-miles of service performed by motor busses in cities and towns is considered the importance of the passenger motor vehicle is even more clearly appreciated.

It is not only the volume of business transported but the importance of the services that should be considered in approaching the problem of adjusting railroad and highway carrier relationships. Each service tends to supplement the other, if economically used. The motor carrier and the railroad in an ideal working relationship should be used to perform services which the other cannot do at all or cannot do efficiently. Each type of carrier should be considered of co-ordinate importance and their services should be brought into the reciprocal relationship that is dictated by economic con-

siderations of relative efficiency and by the sporting considerations of fair play.

There is nothing to be gained by vainly regretting that the railroads were slow to appreciate the growing importance of the motor truck and bus as means of improving transportation services. That is history. The problem before us now is to achieve the goal of better relationship between rail and highway transportation under existing conditions.

The success of the motor truck and the motor bus in attracting traffic away from the traditional railroad channels is often underestimated. No definite figures are possible at this time because there are no data available upon the number of freight or passenger services which can be considered directly competitive. It is believed, however, upon the basis of fragmentary evidences, that the volume of line-haul freight traffic transported by motor trucks in carrier services is much higher than the figure of 4.7 per cent stated as an estimate for 1928 by the Interstate Commerce Commission in its report in "Co-ordination of Motor Transportation" (182 *I.C.C.* 400), and, in the opinion of the present writer, even higher than the 10 per cent estimate of Professor Cunningham.

Although there is little doubt that the integration of railroad and motor transportation facilities would have been somewhat less difficult to arrange a decade ago, there are reasons to believe that the task will not be a super-human one at this time. In the first place there has been a considerable amount of progress made in developing larger and often sounder motor truck and bus companies, which, in some cases at least have indicated their appreciation of the advantages of co-ordinating rail and highway transportation under conditions of mutual fairness and advantage to railroad and motor transportation companies. Secondly, there is an increasing recognition of the importance and the necessity of fair and constructive state and federal regulation of rail and highway transportation among railroad and motor transport executives, as well as upon the part of the public and their representatives in state legislatures, in Congress, and in the state and federal administrations. Finally, considerable progress has been made in dispelling one of the erroneous but persistent implications read into the word "co-ordination" or similar descriptive words that the notion implied the domination of other forms of transportation by the railroads. Such an implication is not properly drawn from the true meaning of the term "co-ordination" because the prefix "co-" implies equality of relationship and the integration of the transportation facilities upon a basis of equality.

The co-ordination of transportation facilities sought to be achieved can be brought about in a number of ways: first, by the ownership and operation of motor trucks and busses by railroad companies; second, by the ownership and operation of motor vehicles by subsidiary companies organized by the railroads; third, by the employment by railroads of the services of motor truck and bus companies as agents to perform certain services which can be performed more efficiently by motor than by rail; fourth, by the establishment of joint through rates and routes via rail and highway carriers as connecting carriers; and fifth, by the creation of transportation companies which will

provide railroad and highway, and perhaps waterway and air, transportation services as parts of a general transportation.

Any policy of co-ordination or correlation of rail and highway transportation, if it is to be successful in the fullest sense, must be based upon fairness to all types of carriers, the economic utilization of each type of carrier in the field where it is relatively efficient as determined by the results of comprehensive and fair experimentation, and the fair and constructive state and federal regulation.

The present writer is in complete accord with Professor Cunningham's position that correlation on a comprehensive scale and of constructive character would be beneficial to highway and rail transportation as well as in the public interest. For a short time certain "bargain-hunting" shippers and travelers may obtain low rates and fares, but there is unmistakable evidence that the demoralization of rate and fare structures as a result of excessive competition is never to the best interests of the carriers or the public. If the present conditions of destructive competition and the duplication of services and facilities in the field of transportation are permitted to continue the splendid transportation system of the United States will tend to rend itself apart like a machine without a governor. Our choice is between co-ordination or chaos, between correlation or destruction.

It is impossible for the present writer, as it is for Professor Cunningham, to conceive of co-ordination or correlation without a sound policy of regulation and taxation of all forms of transportation. The present wide differences in the regulatory policies of the states of the United States are absurd as well as harmful to the interests of carriers and the public. The lack of federal regulation of motor transportation is deplorable from the points of view of the best interests of the motor carriers, the railroads, and the public. Public motor carriers are struggling to maintain service and compensatory rates in face of overwhelming and often desperate competition of a swarm of motor truck and bus companies in intrastate and interstate commerce.

The public is bombarded with veritable barrages of propaganda and counter-propaganda from the rival artillery, while the infantry of the rival armies advance or retreat under cover of the bombardment and occasionally are caught between or in their own barrages. It is no wonder that the public stands bewildered and endangered in the midst of this remarkable display of pyrotechnics. It is becoming increasingly aware that in the long run it will pay the bill for the wastefully expended ammunition.

Shall our policies, state and federal, tend toward the relaxation of railroad regulation, as many insist eloquently but not always logically, or should it tend toward the more comprehensive and uniform regulations of all types of transportation.

It is respectfully submitted that our federal and state regulatory policies should be developed along the line of regulating all types of transportation carriers for hire upon a fair and constructive basis so as to achieve the following results: the assurance of adequate transportation services of the kinds required by the public in particular cases; the protection of the public against unjust and unreasonable discrimination and against unreasonable rates and

charges; the protection of the carriers against destructive competition of the same or different kinds of carriers; the conservation, as far as possible, of the investments made in good faith in each type of carrier; the protection of the interests of the workers in each field; the maintenance of reasonably compensatory rates and fares to all types of carriers; and the fair and adequate apportionment of the burden of taxes.

It is not the purpose of Professor Cunningham's paper nor of this discussion to formulate a full program but to urge that a program be worked out and to suggest the fundamental consideration that should shape the policy.

The problem is a challenge to the research ability of economists, engineers, and political scientists, to the lawyer, financier, and legislator, and to the spirit of fair play of all types of carriers and the public.

The problem is not a single problem but a series of interrelated problems.

First, the types of transportation services required to serve shippers and travelers under modern industrial conditions and social and economic life must be determined. Second, the carriers and combinations of carriers best suited to perform the necessary services under conditions of greatest efficiency must be determined by the observation of the actual results of operation under varying conditions. Third, the services of various types of carriers must be brought into harmonious and mutually satisfactory working arrangements to afford complete and adequate transportation services to serve the public and to conserve the carriers' best interests. Fourth, the type of federal and state regulation best suited to regulate all types of transportation carriers must be found and applied without fear or favor to all carriers serving the public. We must regulate transportation and not the several kinds of transportation carriers in different ways, or not at all. Fifth, the state and federal regulatory policies must be correlated so as to avoid duplications or omissions in regulatory jurisdiction. Sixth, sound and fair means of assessing and collecting taxes from the various transportation carriers must be devised and put into effect.

Perhaps nowhere in all the troubled arena of conflict is there greater confusion and disagreement than in the subject of motor vehicle taxation. The railroads complain that they are taxed too heavily, and that too large a share of their tax payments go to highway construction; and that the motor carriers pay too little taxes. Motor truck and bus operators, on the other hand, are not infrequently heard to complain that they already pay too much in taxes.

The most constructive work thus far done in attempting to blaze a path through the wilderness of disagreement has been done by the Joint Committee of Railroads and Highway Users of which Professor Cunningham was executive secretary. As a neutral it is difficult to find anything to criticize in Findings 61, 62, 63, and 64, to which Professor Cunningham has referred.

The present writer agrees heartily with Professor Cunningham that such a formula as proposed in Findings 64 would be a long step toward a fair and logical system of highway transportation. This plan provides for the payment

by all vehicles using the highways of their proportionate share of the basic cost of constructing, improving, and maintaining a highway system designed primarily for private passenger automobiles, and for the payment of the additional costs of constructing, improving, and maintaining roads suitable for heavier types of vehicles including those used in private, contract, and common carrier services.

The basic highway system should not be lightly surfaced roads such as proposed by certain railroad spokesmen, but highways adequate for modern private passenger automobile transportation. The basic roads should be of various types of construction in different parts of the country and in different parts of the several states, depending upon the density of automobile travel and topography of the district. The extra costs of construction, improvement, and maintenance should be added to these varying bases and the basic and extra costs fairly distributed among the various classes of highway users. It is freely conceded that the task is not an easy one, but neither is it impossible. It is a project for a group of disinterested research men, and not one to be solved by claim and counterclaim, argument and counterargument, by a bipartisan board representing the railroads and the highway transportation interests.

It is suggested that each state appoint a highway research board consisting of a competent highway engineer, an expert in highway construction, an accountant, a tax expert, and a transportation economist familiar with highway transportation problems to work out a basic highway formula, and a system of differential construction costs for the highways needed for various types of highway vehicles. The state plans might well be harmonized by a similar national body working in harmony with the Federal Bureau of Public Roads of the Department of Agriculture.

We must have a planned highway system, and a fair plan for financing highways not only for the present but for the future.

ROUND TABLE CONFERENCES

MARKETING UNDER RECOVERY LEGISLATION

ROLAND S. VAILE, *Chairman*

The marketing problems under recovery legislation are many and complex. In introducing this round table I desire to suggest some of these problems under four main headings.

First, the problem of re-establishing certain parity of values so that exchange of goods and services may be resumed. Much of the discussion of this problem runs in terms of parity of prices with special emphasis on the parity of agricultural prices. It should be pointed out that the thing really desired is parity of income and that the parity of prices, even if realized, may or may not result in parity of income. It may also be pointed out that the emphasis on agriculture is, in one sense, misplaced, for the total income of the other raw material industries has been much more seriously affected than has that of agriculture. Moreover, in the attempt to establish parity of values in some lines, other lines have definitely been thrown out of step. Specifically, in the Lumber, Textile, and Bituminous Coal Codes, the minimum wages established have adversely affected certain areas in their competition with other areas. Or again, the income accruing to manufacturers of branded commodities has been differently affected from that of the income of manufacturers of non-branded commodities, and the income to lenders has been reduced while the income to laborers has been increased. In other words, while parity may have been secured or approached for some groups, the attempt has definitely resulted in lack of parity of income for some other groups. One wonders whether it is either possible or desirable to avoid shifts in relative income of the sort suggested.

Second, the problem of raising the total national income to its 1926-28 level. This problem requires, among other things, a re-establishment of confidence and the development of an adequate purchasing power. The correction of unfair trade practices and the provision for more accurate market information that follows the adoption of industrial codes should add to the business confidence of enterprisers. On the other hand, both of these activities reduce the possibility of unusual profits to the clever individual proprietor. Moreover, the fixing of prices provided in some codes may give a rigidity to certain parts of our entire price structure that will reduce rather than inspire confidence.

As already suggested, much of the publicity regarding recovery activities suggests that purchasing power is weakest in agriculture. This seems quite contrary to fact because the two-thirds of our total population living in cities seem to have suffered a much more severe reduction of purchasing power and standard of living than has the one-third living on farms. National income cannot recover unless or until certain city industries are directly stimulated.

Third, the distribution of national income. An important aim of recovery legislation appears to be the increase of total national pay rolls. Historically,

recovery has come following a shortage of inventories and a rise in prices as a result of this scarcity. This situation has suggested the opportunity for increasing profits to enterprisers. The present program, in contrast, suggests the raising of wages and pay rolls before there is a scarcity of goods. This will tend to raise costs as rapidly as output is increased and thereby prevent any considerable increase in profits. Whether there are motives, patriotic or otherwise, that are strong enough to reverse the business cycle sequence and bring about a revival of industry without the lure of profits is a question that the experiment must test.

Another question with respect to the distribution of national income is: Where do the increased wages come from? They must be paid in anticipation of increased sales. In part, and possibly in major part, they come from increased government borrowing and lending. The activities of the CWA, PWA, RFC, FHC, and FLB are all in the direction of forcing loans on to the public. The intention is that these loans shall immediately become purchasing power and that they will represent increased demand for consumer goods.

Immediately the question arises: Where are these funds used? Data are not available to answer this question entirely but it is evident that a considerable part is used to pay the most insistent existing creditors. These creditors, in turn, use their collections to liquidate their own debts and the result of the process in some instances is, doubtless, merely to reduce bank deposits through the payment of bank loans. A second considerable portion is used to replace payments now being made through public and private relief organizations. What the total extent is of this transfer cannot, at present, be estimated, but it is one of the questions that must be studied in finally evaluating the various attempts to increase purchasing power through government loans. The net accomplishment of these forms of increasing purchasing power cannot now be estimated but certainly it is materially less than the face value of the loans and expenditures.

Fourth, direct improvement in marketing institutions. In some of the codes adopted under recovery legislation, direct effort is made to improve marketing organizations. Integration is permitted and even provided in the attempt to reduce the cost of market risks and also to reduce the total net profits. In other cases, divisions of market areas are suggested to avoid the expense of cross-hauls of merchandise. In some instances standardization of commodities in the interest of the consumer are suggested that should result in lower prices and in lower cost of handling. As yet, little effort has been made to eliminate inefficient operators already present in any particular field. Some effort is indicated towards the prevention of new inefficient operators entering the various fields. If this latter end can be accomplished, general efficiency will increase as the present inefficient firms slowly expire. On the other hand, some of the codes so definitely reduce the ruthlessness of competition that improvements in operating methods may be materially delayed.

Doubtless, after the first rush of establishing codes and marketing agreements, and what-not, the authorities representing both the trade associations and the government will go back over the enactments with greater deliberation. During this process it is to be hoped that the problems suggested in

this brief résumé will be carefully considered along with many others that will have occurred to the groups actually engaged in administration of the various new provisions.

GEORGE FILIPETTI.—The following discussion is an attempt to interpret the effects of the National Recovery Act upon the marketing, chiefly, of manufactured goods. It is based upon the provisions of the several codes of fair competition and has led the author into an interpretation of the motives behind the development of the present program. Whether that program is an emergency one and the provisions of the codes are purely temporary, or whether it is to become a long-term program and the provisions of the codes more or less permanent, is an all-important question. If temporary, business can muddle through for the next eighteen months trying to comply with those sections that can be complied with, and doing little or nothing with those sections of the codes with which little or nothing can be done in so short a period of time.

The present program appears to bring us nearer to the elimination of those business practices which the several industries have been pleased to call **unfair**. If the NIRA is constitutional, or its specific provisions are constitutional, then each industry has within itself the power to compel a degree of compliance that the trade associations previously could not compel. Over **recalcitrant** members there hangs the threat of the penalty provisions of the codes, of the presidential licensing power, and the promise of the possible limitation of the entrance of new units into an industry. Previously, individual members were free to join or not to join trade associations and to subscribe to the trade practice agreements, or to withdraw from membership when they chose. Violations of the terms of agreement by a few were likely to be followed by violations by the many. The new legislation appears to force compliance, and marketing costs arising from such things as commercial bribery, lavish entertainment, discriminatory discounts, long credit terms, and other so-called destructive practices appear to be coming under control.

There will be significant changes in price competition, at least in some lines. Any individual manufacturer will be limited in his price reductions because of the inability to exploit labor. This results from the setting of minimum rates of pay and the organization of labor groups in every industry. The **five-cent-an-hour** rate of the depression and the social revolt against such exploitation has resulted in the development of this prohibition formula. It appears to make it impossible for an individual manufacturer to maintain his position in the market, or to secure a larger share of the market, by severe price reductions. Furthermore, sale below the costs of production is commonly prohibited and it appears that even temporarily the lowest price that may be reached is the cost price of the most efficient producer. As a matter of fact the way seems to be open to prevent prices falling to this level. In more than one instance, provision has been made for the adjustment of production to consumption, in some cases actually going so far that the estimated required production may be allocated to the individual plants. Under such conditions, particularly if there are a relatively small number of companies serving a market, the maintenance of prices that would yield

profits for every member would appear to be a not particularly difficult achievement.

In the Cleaning and Dyeing Code, provision is made for the establishment of minimum regional prices for both the wholesale and retail operators, and similar possibilities are presented in the bituminous coal areas. The question may well be asked as to whether, if this kind of price establishment is permitted in one industry, it may not, or should not, be established in others. Do conditions make it desirable to have such arrangements only in one or two industries or are we going to select other lines that have similar peculiarities and which, therefore, are entitled to similar powers of price fixing? Are we going to extend this principle to all industries that desire such regulation or are we going to extend it to all industries whether they desire this form of regulation or not? The implications are many and far-reaching.

In Article V, Section 1 (b) of the code of the rock crusher manufacturing industry, each member is required to publish and file with the code authority a net f.o.b. manufacturers' price list to apply to all consumers. No manufacturer is to sell through any distributor, jobber, dealer, or other sales representative unless each of these has agreed to sell only in accordance with such published lists. Here is the resale price maintenance provision over which controversy has long raged. We can raise the same question in regard to its extension as we raised in the establishment of minimum regional prices among the cleaners and dyers.

Another interesting provision that is certain to have market repercussions is Article VI, Section 4 (b) of the Limestone Code. This provides that any member of the industry selling block and sawed stone shall publish price schedules and file them with the code authority. The same section provides, further, that members of the industry that both quarry and fabricate limestone shall charge themselves, as fabricators, the prices for the block and sawed stone that they have filed with the code authority. If this practice were to be extended to integrated industries in general it is quite possible that in some cases the consumer would not be able to obtain the benefits of the economies that have resulted from integration. Furthermore, while integration in some cases has been stimulated because of a desire to control the needed supplies of raw materials in preceding operations, in other cases it has been stimulated because of the ability to produce the finished product at a lower cost. This limitation would prohibit a fabricator from reaping the advantages of such organization.

The Bituminous Coal Code states that coal must be sold at a fair market price; that is, a price necessary to carry out the purposes of the NIRA, to pay the minimum rates of wages established, and to furnish employment for labor. Prices are set by selling agencies subject to review and approval of the administrator. These regulations are expected to reduce the so-called un-economic and destructive competition among the various fields.

The foregoing examples of the clauses dealing with prices indicate some rather widespread changes in the interrelations of prices and markets.

Apparently the attempt is to be made, at least in some lines, to define the market areas in which the producers are to sell their products and to

limit their operations to those areas. One of the most elaborate codes from the point of view of a national organization looking to the definition of market areas is the crushed stone, sand and gravel, and slag industry. The United States is divided and subdivided into areas and broad powers are given to the agencies in those areas to regulate marketing. The regulations in the Bituminous Coal Code are expected to establish a proper equilibrium among the producing fields and to promote the development of markets that are related geographically and economically to the producing centers.

In another way, the establishment of minimum wage rates will also have an influence since certain regions may become less important outlets for their products. The change in wages in the cotton textile industry, for example, would seem to operate in favor of New England and against the southern manufacturers. The immediate effect has been to increase the purchasing power of the textile workers in the southern states, but it appears as though the ultimate effect would be to cause unemployment in these industries in the south and to increase employment in the north. Market analysis by companies that have been looking to a future of expanded sales in the south must now take into consideration the effect upon the southern market of the newly established southern wage rates.

It is possible that the future will see considerable diversion in the flow of goods to the market. If we extend the provisions of some codes to other fields, then the agencies to be used in distribution may be determined by group action of producers. They may eliminate some agencies and promote others. In the Cement Code we read that, except as otherwise specified, Portland cement shall be marketed in each community through the building material dealers regularly serving the community. In a considerably elaborated section, Article XI, the exceptions, that is, the buyers of cement who may be sold direct by members of the industry at the same price and under the same terms and conditions as the dealers, are specified. In the fertilizer industry, sales to dealers and consumers through brokers are prohibited. In these industries salesmen may be compensated on a fixed salary only and may not be paid on a commission basis. The Boot and Shoe Code prohibits the misbranding of products, including the name of dealers who have not made them. If this principle is extended, then a dealer who develops his own formula for a product, advertises it, does everything in fact except perform the manufacturing process, must either go into production or recede from his present position in the industry. The trade association or some other authority apparently may determine what channels shall be used for particular purposes, what shall be eliminated, and what and how specific functions shall be performed.

The code provisions relative to the kinds of reports and the types of information that may be required appear to place little limitation upon the details that may be sought. With the full membership of an industry furnishing the required data, and with a central clearing agency to assemble and interpret the information and recommend or order courses of action based upon it, the code authority will be in a position to lay its plans with all, or a large part of the necessary facts before it, and to measure the effects of

the operation of its plans. For example, the Lumber Code authority has as one of its functions the estimation of the consumption of lumber and timber products of the several grades and upon these estimates quotas are assigned to the producers. Market forecasting may become a more nearly exact science than it now is.

Two questions of significance arise relative to the control of production and the accumulation of knowledge of the market. Will industry restrict production and maintain relatively high prices and thus limit the range of demand? Will industry, through the power and influence of able leadership, devise ways and means of reducing costs in individual plants, and hence reduce prices?

The provision of regional production for regional consumption will eliminate, as far as the codes include this, the cross-hauling of freight; that is, the movement of materials from one point to another while similar materials are moving in the opposite direction from the second point to the first. The full statistics on such items as production, orders, sales, and stocks, will make possible a better performance of the storage functions. The standardization of terms of sale may do much to reduce the risks of doing business, as it will tend to a better selection of buyers. There is greater opportunity for the seller to enforce the standard terms since he and every other vendor is required by law, under penalty, to do so. Another competitive factor, however, is thus eliminated since the seller with surplus funds cannot offer more liberal terms than his competitor who does not have the required capital to enable him to finance sales over a longer period of time.

It appears that foreign competition in some fields will play a different part in the future from what it has in the past. If a group of domestic producers can show that the imports of foreign goods are disturbing the tranquility of the American market, they may recommend that action be taken against such imports and thus perpetuate the organization and operating conditions that domestic producers have established. The counter actions of other countries to American exports will add fuel to an already chaotic foreign trade and create instability for any groups engaged either in importing or exporting. This will continue until we finally reach some kind of a decision on just how self-contained we can, or should, be, and then adopt a plan in accord with that decision.

In some lines, standardization of quality would seem to be stimulated and competition materially reduced. In the Cement Code, Portland cement is required to comply with the standard specifications of the American Society for Testing Materials, the American Standards Association, and the Federal Specifications Board. In the fertilizer industry, in order to eliminate waste and reduce the cost of manufacture, producers in each zone, acting through their own committee, may establish grades suitable to the needs of the particular area. Variations from these standards are to be paid for by the purchaser. Such clauses as these, operating with provisions of fair trade practices relative to special containers and prohibiting the disparagement of competitive goods, would seem to lead to the production and distribution of standard goods. Further stimulus in this direction would seem to result from the time guarantee limitations that are found in some instances. For example,

in the Rock Crusher Code the maximum guarantee period is ninety days, and in the paint and varnish industry definite time guarantees on the life and services of the products of the industry are not permitted. In the past such guarantees, backed by responsible companies, have been important factors in influencing consumer choice in some lines and have stimulated the development of superior products. Sales appeals on these bases, however, are definitely denied in some industries and the extension of similar agreements in other industries might prove disastrous to the consumers and penalize the more resourceful producers.

It appears reasonable to expect some change in the market for industrial equipment. Producers of such equipment are facing a code provision that occurs repeatedly, to the effect that code authorities may recommend to the administrator that new business units be prohibited from entering an industry, that existing plants be not permitted to expand, and that new machinery be allowed for replacement purposes only. Such provisions are found in the Cement, Textile, Iron and Steel, and the Hosiery Codes. The idea behind this is to prevent the increase of productive facilities in industries supposed to be already overequipped, but since many industries, even at the peak of the boom, did not operate at 100 per cent of capacity, the outlook for the equipment producers is not particularly bright. Furthermore, this limitation places a definite check upon the creation and sale of more efficient machines. In some industries in which these machinery limitations have not been employed, the higher wage rates may stimulate the use of new equipment. With the increasing organization of labor, however, definite attempts to penalize the machine are possible.

Manufacturers who perform one or two processes in the production cycle from raw materials to finished products should study the code of the cotton garment industry. Although inserted to meet what is looked upon as a trade abuse, paragraphs B and C, Article XI, raise the question of the probability of social control of the extent of the processing that must be performed in one plant before it is passed on to another producer for subsequent operations. It is declared an unfair practice for any member to send out work to any 'contractor' to be made into a garment by him if the work requires the contractor to cut the material. Such cutting of the material must be done by the manufacturer unless permission is obtained from the code authority. In addition, members of the cotton garment industry are prohibited from selling garments that are cut but unsewn and unfinished. Justification for extensions of this regulation to other industries because of possible abuses due to limited processing may be quite possible.

One is tempted to say that the market for products is about to witness a widespread appearance of monopoly practices. The establishment of uniform regional prices, the fixing of market areas and the groups of producers who are to operate in each area, the standardization of products, services, and terms of sale, the allocation of production and similar provisions seem, in the light of previous interpretations of business activities in the early pool and the subsequent trade association cases, to point in this direction. There are, however, the repeated assertions that the codes are not designed to promote

monopoly, and the foregoing effects may be more seeming than real. In any event the permitted powers are under the supervision and control of the government and may result in production and distribution in the public interest.

Enough has been said to indicate that if the NIRA is, in its major provisions, constitutional, if it is possible to sustain such a program under our present form of government, if the clauses in the codes may be legally enforced, and if the codes are to be looked upon as long-term programs, the effects upon marketing, in many fields, may be extensive. How far-reaching they become will depend upon whether certain provisions appearing in some codes are looked upon as principles of industrial operation and are given general application in the several industries, or whether these provisions are permitted only to a single industry or a selected few. Furthermore, whether the answers to these questions are affirmative or negative, the ideas and the purposes of the new deal may still be pushed forward.

The NRA program is a transitional one with the horizon not quite clear. We cannot see exactly toward what we are moving. From the point of view of a planned economy, the constant driving down of costs, the increase of productivity along the whole industrial front is the direction in which industrial statesmanship should go. Under such a scheme there can be no struggle for quotas. We shall not get very far unless high cost producers are eliminated, unless greater product accompanies less human effort, unless opportunity is given to develop new products and services and thus provide for the satisfaction of broadening wants. Whether minimum standards of quality become maximum standards will depend upon the administration of the plan. Whether minimum prices will stay fixed rather than be reduced is an important question. Whether strong labor and employer groups in one industry will be able to keep for themselves the gains of progress in their field by maintaining prices, and thus work to the detriment of other industries, are all questions of the utmost significance in the administration of the new social control. We may secure orderly and balanced production and marketing but we may fail to secure production and distribution of large quantities of goods. The easy way to a planned and controlled economy is by the path of restricted production, price maintenance, and social rigidity, but that is not the way to an economy of plenty and general social well-being. Restricted production and price maintenance, whatever the immediate gain to a particular industry, will give balance and poverty; increasing production implies fluidity and change, but it is the road to plenty.

ECONOMICS OF THE RECOVERY ACT

JOSEPH H. WILLITS, *Chairman*

EDITOR'S NOTE: Only one paper presented at this session was submitted for the *Proceedings*.

JOHN DICKINSON.—The problems with which government for the moment is grappling are almost exclusively economic, even more than in a previous age they were predominantly religious. It is therefore not inappropriate, I suppose, that a governmental administrator should appear before a gathering like this and expose to the learned scrutiny of this audience some of the views and conclusions about economic matters which he believes to be governing him, or which he conceives to be guiding his colleagues at Washington.

I shall speak first about some general considerations which seem to me to underlie the whole policy of the Administration and then confine myself to one or two special phases of the recovery program which have fallen directly under my own observation.

Any discussion of the economic policies of the Administration must commence with certain general considerations, because that policy in some of its major aspects challenges at least the emphasis which has hitherto characterized a great deal of accepted economic doctrine. I say it challenges the emphasis, rather than the doctrine, because the corpus of economic doctrine itself, as it has been built up, like a coral reef, by the labors of innumerable contributors, is not subject to general, but only to specific, challenge. There is one limiting feature of economic doctrine which is perhaps not so generally kept in mind as it should be; namely, that many of the particular doctrines which go to make it up have been devised at some time in the past to meet particular problems which at that time were pressing, and were accordingly devised with a special angle or slant which needs always to be read into the doctrine if it is to be properly understood.

The entire mechanism of production and exchange and distribution which form the subject matter of economics has undergone a practically complete transformation since the days of Adam Smith and even of Stuart Mill. Of course no competent economist in his own thinking fails to make the necessary corrections and qualifications of economic doctrine which are required by these special limitations of the science. Every science, however, and particularly a practical science like economics, has a habit of throwing off an oversimplified popular image or stereotype of itself which responds much more slowly to change and correction than the technical science itself. This popularized stereotype of economics affects the thinking even of economists themselves more than they suppose. It is certain matters of emphasis in this generalized version of economics which the Administration's program challenges, rather than the body of economic doctrine as such.

The prevailing stereotype of economic thinking has hitherto been built around a picture of a world consisting of a multitude of small independent units, each characterized by almost complete freedom of motion and whose interaction corresponded to certain statistical laws. The movement of the

units in correspondence with these laws was thought to be of such a character as constantly to restore the whole system to equilibrium whenever any one tendency should chance, for the time being, to get out of balance with the rest. The normal effectiveness of the system to produce sufficient goods for the needs of the community and distribute those goods equitably was therefore thought to depend primarily on the freedom of the individual units to act as the laws of economics assumed that they would act. A large number of individual men each buying what he individually wanted would call into action precisely the amount of labor, capital, and raw materials needed to supply those things. A recession of demand would cause a lowering of price which in turn would restore demand. An oversupply of capital would lower the rate of interest, decrease saving, and thus create a scarcity of capital which in turn would send the interest rate up. Human economic motives were supposed to be such that the economic system, if temporarily thrown out of balance, would right itself automatically.

The pre-established harmonies of popular economics—for the view I have been outlining cannot properly be charged against scientific economic theory in even its most classical form—presupposes and, as I have said, depends on a world of small independent units no one of which counts in the system for more than an element in a statistical average. It depends on the free appearance and disappearance of business units and their free entry into and withdrawal from the market. It depends on relatively stable habits of life which cause the ebb and flow of substantially the same demands rather than the substitution of wholly new demands and the complete disappearance of old ones. It depends on a stable unit of value and exchange, and I rather think upon a stock of money which does not consist mainly of credit instruments. Hitherto we have been assuming that the conditioning facts of our economic theory corresponded to the facts of the whole world. Now that we have had to face those facts, we observe divergencies in some major particulars.

In the first place the economic unit today is not the free mobile individual, the minute element in a statistical average, but for all practical purposes it is the business concern, and as often as not the business concern is of very considerable size, and sometimes of mammoth size, binding together in a tight complex the interests of countless individuals, and tied in, through banks or otherwise, with many similar complexes. In some industries the effective business units are reduced to half a dozen or even a smaller number of giant enterprises. The behavior of such a business unit is by no means so free and mobile as that of the economic man of the old theory. Its managers, with the interests of an impersonal mass of investors, creditors, and employees at stake, cannot or do not act as an individual would. They cannot, for example, go out of business freely; to do so would involve abandoning plant and equipment which represents millions of dollars worth of savings. Often they cannot even withdraw from the market effectively because an expensive plant eats itself up when idle and overhead must be met at all costs. The result is that, in the face of slackened demand, production often continues in excess quantities made possible by the financial strength of the contend-

ing units. Because of such financial strength they may be able to hold up prices with the result that their production accumulates in the form of mounting stocks which overhang the market ever more and more menacingly. On the other hand a vicious price war may result which drives prices for everybody below the cost of production, ruins not necessarily the marginal competitor but those with relatively weak financial staying power, and in the process shocks or shatters banks and the countless investors or depositors whose wealth has been tied into the industry. One of the necessary links in a system of automatic economic adjustments is the free disappearance of economic units. Under conditions today the prospect of toppling giants is so fraught with menace throughout the whole system that men shun automatic adjustments bought at such a price, and they do not occur at the time when they should if an automatic balance is to be maintained.

A second particular in which current conditions do not conform to the presuppositions of an automatic system of economic adjustments is closely connected, I believe, with the one to which I have just referred. Not only do the automatic adjustments not take place because the units have grown so large and hence are not mobile and flexible, but also because today practically all our economic activities have been drawn into the nexus of a highly organized industrial system without an elastic cushion to absorb the repercussions within the system. For example, fifty years ago our agriculture lay largely outside the industrial system. The farmers were self-supporting and did not depend for their livelihood on the conversion of their crop into money. A good deal of local industry and trade went on which was not tied into the national system by bank loans or other forms of financial dependence. Those areas of economic activity lying outside the organized system formed what may be compared to a cushion which operates to absorb much of the shock of the repercussions within the system. In idle times labor was absorbed into those outlying activities and in boom times the farms and local workshops increased their output. Today all our economic activity is geared into one system with vastly increased rigidity and with increased menace to the stability of the system. It is even being proposed to found retail accounts payable and make them a basis for credits.

A third respect in which the facts no longer correspond to the presuppositions of a system of automatic economic adjustments relates to the changes which have taken place in our medium of exchange. Today, as is well known, our medium is largely bank credit circulating in the form of checks. Bank credit represents in the last analysis a hope, a prophecy of the future. It depends for its value on the value, or rather the prospective value, of the assets or enterprises on which the bank has loaned. The result of this is an interesting inversion, or perhaps I should say perversion, of the supposed operation of the law of supply and demand. When business is booming and values are rising, bank credit increases and the increase in the stock of money which this implies raises prices still further and thus tends to stimulate rather than repress the process. In precisely the opposite way, in a time of depression the value of bank assets, and hence the volume of bank credit, decreases, with the result that money becomes dear, prices continue to fall, funds avail-

able for buying decrease, and again the prevailing tendencies are enhanced rather than decreased.

I have only touched on a few of the characteristic features of our current economic situation which seem to me to explain in part why the old confidence in a system of automatic economic adjustment has disappointed us. They illustrate why deliberate, conscious intervention in the system by governmental authority has become more than ever necessary. Of course, no system of purely automatic adjustments has ever prevailed. Government has always set the limiting conditions within which economic activity has gone on, has defined what transactions would be legally effective. What we have recently been taught by the facts to recognize is, that at various points our economic system may get completely out of balance and that, if it is to be restored to proper working condition, there must be the same kind of engineering attention given to it by conscious intelligence which is given to any system, mechanical or organic, that has gotten out of gear.

Of course, this is not to deny that there are economic sequences of cause and effect to which conscious action must conform, if it is to produce its results, just as the chemist and the bridge builder and the engineer must conform to physical sequences of cause and effect if they wish to produce the results they aim for. There are forces of adjustment at work within the economic system just as in the human body natural forces of recovery are available to aid the efforts of the physician; otherwise no cure would ever be possible. The problem is always that of co-ordinating effort with the natural trends which effort must make use of. It is the old problem of art on the one hand and nature on the other. The two are correlative.

It is important, I think, to note that there is need for balance in our thinking because some economists are today pointing out that certain of the more important maladjustments from which we are now suffering are in part the result of the deliberate conscious action, of men's attempts to hold back the operation of economic forces and resist the adjustments in the direction of which those forces are tending. Thus they refer to the fact that in certain industries the manufacturing units have been sufficiently strong to resist a general tendency toward a decline in price with the result that sales volume has fallen off and a surplus of the product has accumulated which overhangs the market, while plants have closed down and workers have been laid off, results which would not have occurred had natural tendencies been permitted to work themselves out.

In the same way it is suggested that much conscious governmental interference with economic developments has operated to increase maladjustments rather than to correct them. Sir Arthur Salter, in his recent admirable little book on planning, published under the title, *The Framework of an Ordered Society*, refers, for example, to shortsighted tariff restrictions adopted under the pressure of groups which have not had the foresight to relate their own interests to the general interests of the community and to schemes such as the British rubber restriction plan and the plan for stimulating beet sugar production in England.

Such instances of badly conceived planning afford no sound justification,

I suggest, for taking refuge once more in the old theory of reliance on purely automatic adjustments. Such a course is a counsel of despair and rests upon a fundamental psychological pessimism which denies the ability of human beings to meet satisfactorily by their own efforts the problems of getting a living.

The body of considerations which I have been so far advancing are addressed primarily to those economists who have taken the position that the Administration should have trusted to "natural forces" to bring us out of the depression and should not have undertaken the various forms of stimulation and control which constitute the recovery program. I wish now to speak of two phases of that program, one, temporary and remedial in its objective, the other, permanent and preservative. I refer, first, to the various devices for the artificial stimulation of purchasing power and, second, to the substitution of a regulated for an unregulated competition.

The question of purchasing power in the national economy has in recent years been most frequently discussed in connection with the theory of excessive saving—the theory, in other words, which claims that too much of the annual income has been paid out in forms which divert it into channels of saving rather than into channels of consumption. There has been a tendency to interpret the Administration's program for increasing purchasing power in terms of this controversy. Some of the economic critics of the Administration who believe that the arguments for diverting more income from saving into consumption are unsound have viewed with skepticism the Administration's efforts as resting upon these arguments. In their own turn, these critics have suggested, as recovery devices, measures based on their belief that saving and the investment of saving promote sound economic activity. I submit that this interpretation of the campaign to increase purchasing power in terms of the controversy about the comparative merits of saving and consumption serves to obscure rather than clarify the recovery effort and that a good deal of misunderstanding could be avoided, if we approach the observation of that effort from a different point of view.

The situation with which the Administration was confronted on taking office was marked by a progressive decline of production on the one hand and purchasing power on the other. Between February, 1929, and February, 1933, the production index had fallen for the textiles from 114 to 84, for lumber from 86 to 20, for iron and steel from 128 to 81, for automobiles from 143 to 83, carloadings had fallen to 53 per cent of the normal, electric power consumption to 62 per cent of the normal, bituminous coal production to 61 per cent of the normal and department store sales to 49 per cent of the 1923-25 average. Coupled with this progressive decline in production and trade, there had been a progressive increase in unemployment until the total number of the unemployed had reached the figure of approximately twelve million. Obviously, if people were to be re-employed, industry must resume a more normal rate of production. On the other hand, if industry was to resume a more normal rate of production, it must find purchasers able and willing to buy its products.

At this juncture, the consideration was advanced by many economists that

as a matter of history, recovery from past depressions has always been initiated by the opening up of new fields for profitable investment which stimulate the capital goods industries, thereby reabsorbing the most considerable volume of the unemployed, who thus become purchasers of consumption goods. It was accordingly suggested that the proper line of procedure would be to devise some means whereby, either through increasing profits, or through a vast public works program, or otherwise, the capital goods industries which had naturally suffered most severely would again be set in motion and thus stimulate a demand for the products of the consumption goods industries.

The difficulty about this line of approach was that it was blocked by the existing fact-situation before it could commence. In the past the opportunities for profitable investment which have initiated recovery from depressions have practically always been connected with the opening up of foreign markets. The opening to development of the United States, of South America, the Orient, and South Africa at different periods during the nineteenth century provided the conditions which governed recovery from the various nineteenth century depressions. Today there are still large undeveloped sections of the world, the opening up of which might, if other conditions permitted, afford a way out of the current depression along the lines of the past. But today, there are two great obstacles which make it impossible to take advantage of these opportunities. The first is the international political situation where tariff barriers and other restrictions on trade impose an insuperable obstacle to the speedy exploitation of foreign markets. The second is the accumulated mountain of indebtedness under which practically all foreign countries are laboring as a result partly of the destruction of wealth by the War, and partly of the overstimulation of production and trade during the recent boom.

It is sometimes stated that the "new frontier" whose exploitation offers the key to future prosperity lies in the development of new demand at home through an increase in the standard of living. If this frontier is to be exploited, however, there must be presupposed on the part of the people a capacity to buy, and that capacity obviously did not and could not exist in the midst of general unemployment. The possibility of revival through the profitable exploitation of a frontier was thus excluded in both directions, nor could a program of public works of itself carry the burden of initiating recovery through a revival of capital goods industries without being undertaken on so vast a scale as to be totally impracticable. The traditional avenues to recovery were thus blocked and brought to an impasse. The initiating force had to be sought in a different direction.

It was from this point of view, and for these reasons, that the Administration had recourse to the policy of increasing the national purchasing power. It was obvious that if industrial production was to be increased, so that more people could be employed, the demand for the increased product must come from within the nation. The great volume of purchasing power within the nation comes from two classes—the farmers and the workers who are employed in production and distribution. If the pump was to be primed, if an impetus was to be given, to start again the normal revolution of supply and demand, the only feasible device seemed to be by increasing the purchasing power of these two classes, and it is to this objective that the main

effort of the Administration has been directed through the two major agencies of the agricultural adjustment program and the industrial recovery program. Other relief measures of the Administration have aimed in the same direction, such as the releasing of the frozen deposits in closed banks and the easing of the burden of indebtedness on farmers and home owners. The novel features of the program, however, are those connected with the Agricultural and Recovery Acts.

The device adopted for increasing agricultural purchasing power has been primarily the reduction of agricultural production, coupled with the payment to the farmers of a sum derived from a tax on the processors of farm products. The device adopted for increasing the purchasing power of workers engaged in industry and distribution has been a shortening of hours, accompanied by the maintenance or increase of the wages paid to the individual worker, thereby increasing the number of workers employed and correspondingly increasing the total wage bill of the employers. Through both these channels it was expected that a greatly increased volume of funds would be made available for consumptive expenditures, and thus released into the channels of trade. This stimulation of the demand for the products of the consumption goods industries would, it was hoped, make possible replacements and ultimately extensions in these industries which would reach back and stimulate the production goods industries. Since this is inevitably a somewhat slow process, a program of public works on a considerable, but none the less practicable, scale was initiated to set in motion a recovery in the capital goods industries in the interim.

The policies embodied in the agricultural adjustment program and the national recovery program have been viewed with a certain amount of skepticism by some economists for two reasons. The first is that the policy of reducing agricultural production is thought to rest upon a supposed state of overproduction, whereas many economists take the view that there cannot be overproduction in any true sense. Again, the policy under the Recovery Act of reducing the output of the individual worker by shortening hours for purely economic, rather than social, reasons, has been criticized as an impediment to recovery. Both these criticisms rest upon a broad generalization—the generalization that the national well-being and the standard of living are on the whole directly proportional to the total quantity of goods produced.

With this generalization, as a generalization, there can certainly be no quarrel, as is the case, for example, with the corresponding political generalization, that on the whole the greater the amount of freedom which the individuals of a nation possess, the greater is likely to be their happiness and the rate of national progress. The difficulty is that these generalizations are not formulae to be applied as rules of thumb to particular cases. While it may be true, in a long-run sense, that there can be no absolute overproduction, it is clear that in the case of a particular commodity at a particular time the quantity of production may be relatively so excessive as to paralyze the effective demand of the producers of that commodity for other commodities.

Similarly, it may be true that under conditions of greatly depressed

demand, the product may be increased by so shortening the working hours of individual workers as to necessitate the employment of additional hands. The recovery program is obviously, so far as it relates to the features of it which we are now discussing, not intended as a permanent program for industry. It does not address itself to normal conditions or to the operation of normal tendencies. It aims to deal with maladjustments, and it is not to be expected that the measures which can deal effectively with maladjustments are those which would be appropriate for a system which was functioning normally.

If the validity of a program depends upon its results, the recovery program has certainly justified itself up to the present time. While there was a certain recession six or seven weeks ago, apparently due to a somewhat too rapid anticipation of results, the upward movement has been resumed in most lines of activity, and there is a general feeling of optimism which is the indispensable prerequisite for sound economic advance.

I come finally to what many hope to be a permanent and lasting contribution of the National Industrial Recovery Act; namely, the substitution of a regulated for an unregulated competition. Through the codes of fair practice which the statute authorizes, there is held out to industry, under the supervision of government, the opportunity of taking co-operative action to civilize its competitive methods.

If the depression has taught us anything about the nature of the economic process, it has certainly shown us how the results of competition depend upon the types of competitive practices employed, and upon the individual situation within which competition goes on. It has disclosed that under the special conditions of modern industrial life and with the type of competitive practices which have widely prevailed, practically every one of the supposed beneficial checks and balances of competition, practically every one of the automatic adjustments which economic theory attributes to competition, may simply refuse to work. For example, under the operation of competition, excessive producing capacity has not withdrawn from the field leaving the market to the more efficient producers. On the contrary, excess capacity everywhere remains and diminished demand is merely reflected in a general reduction of operations among the producers all around. Inefficient producers have not ceased to operate, but on the contrary, it is often the inefficient producer who, by violating decent employment standards and underpaying his labor as well as working them an excessive number of hours, is able to keep a larger percentage of his production capacity employed than some of his more fundamentally efficient rivals.

Under such circumstances it may well be that price has not been maintained at the point which will return the cost of production to all the producers still in the market. Obviously, this is impossible under conditions where high cost and low cost plants alike remain in the field to compete for a demand greatly below the amount of their combined capacity. Under such conditions competition in the sense of unrestrained rivalry, far from amounting to a system of checks and balances and an agency of adjustment, suggests more accurately a continually descending spiral pointing through industrial anarchy toward ultimate destruction for every one.

Where all, or practically all, plants in the field are in distress, and frankly reaching out for further business to employ their unused capacity, a given plant will often snatch at an order from a powerful buyer at a figure below the cost of production if it merely covers out-of-pocket expenses and contributes something, however little, toward overhead. The buyer who obtains such an advantage is placed in a favored position as compared with his competitors and these at once swarm down on all the other producers with a clamorous demand to be given an equally favorable price. With a scarcity of buyers and a plethora of producers, price as a result of those prices tends throughout the industry to be brought to a figure which not merely carries no return to the producer, but frequently no adequate return to labor and to those who supply the raw materials. This situation exists today in many industries where the farmer who supplies the raw material of the industry and the laborers who work it up are not receiving an adequate return for their efforts, while the industry itself is so paralyzed that it does not afford a safe or attractive field for investment and its credit is destroyed. The mere fact that such a situation is accompanied by lower prices cannot be regarded from the standpoint of the public interest as in itself overbalancing the evils which it entails.

The sequence of events constituting the industrial progress which I have just described is unfortunately not confined exclusively to the period of the present depression, but tends to work itself out even in more normal times, because of certain special conditions of modern industry. These special conditions profoundly affected the operation of competition and no attempt to understand the place and effect which competition has in our present industrial life can afford to disregard them. They are connected primarily with two factors: first, the great size and expensiveness of the typical modern plant which employs all the most advanced and improved devices of machine technology; and, second, the practice of mass production which makes impossible a very nice or close adjustment of plant capacity to demand and encourages plant building in anticipation of demand. The combined result of these two factors is to bring into existence plants laboring under the pressure of very heavy overhead costs and standing in a position of relatively unstable equilibrium with reference to the demand which they aim to supply. Consequently, whenever there is even a slight slackening of demand, the pressure of overhead offers an almost irresistible temptation to the type of competitive practices which lead industry as a whole into the type of progress which I have already described.

The unusual stages in the progress are as follows: In order to meet the burden of overhead, there is always a strong temptation on the producer to step up volume by obtaining orders from particular customers at special low prices which, if offered to all customers, would put the plant in the red. If, however, additional business can be obtained by these orders from a few favored customers, it may seem to the plant management a good stroke of business to help in this way toward carrying the overhead. Inevitably, however, the granting of special prices in this way becomes noised about, pressure is brought to bear upon other producers to grant the same prices, customers who are in competition with the recipients of the special favors

become dissatisfied, and the whole price structure slips down with jarring repercussions to levels which will not defray the production costs of all the producers remaining in the business.

It has been suggested in some quarters that competitive practices of the kind just mentioned, and leading to the industrial consequences which I have described, are among the causes of the depression. The depression has many causes and almost every day a new one is being found for it, but, in my opinion, destructive competition cannot be set down as in any direct sense a major cause. However, there can be little doubt that with the depression upon us, and in our present situation, destructive competition has operated and is operating to retard recovery, and, in fact, to prolong and deepen the depression. And while I should certainly not include the evils of such competition as in any sense a major cause of the depression, I should certainly regard them as an important contributing factor in the general total situation which brought the depression on.

The great obstacle under modern industrial conditions to the operation of competition as a beneficial system of checks and balances and automatic adjustments is the expensiveness combined with the permanence of our modern plant equipment. On the one hand this leads inevitably to the building of plants by means of large-scale borrowed capital and on the other hand throws the most serious obstacles in the way of reducing the production capacity of an industry as a whole in a period of reduced demand. Where there are no obstacles to hinder resort to destructive competition through discrimination and discounts, the possibility of pursuing these practices holds out a delusive invitation to expansion and overbuilding. Since expansion and overbuilding in turn stimulate improper competitive practices of the kind described, we are presented with a vicious circle from which there is no escape save by proper regulation and control of such competitive practices.

I submit that the proper regulation of competitive practices, especially practices relating to secret prices, price discrimination, discounts, and other types of discrimination, will do much towards eliminating forces and tendencies which in normal times, as in times of depression, tend to drag down and depress industry, lower the price of raw materials, and drive down labor standards. The elimination of these practices by bringing price into the open and rendering it subject to the normal operation of the law of supply and demand will tend to maintain a reasonably compensatory figure for all those producers whose output is essential to satisfy demand and will do much toward making it impossible for marginal producers who should be eliminated to survive and drag down their more efficient rivals. The problem of compensatory price, a price at least equal to cost of production, can, I believe, be trusted very largely to take care of itself where a condition of open and non-discriminatory competition is scrupulously maintained.

MEASUREMENT OF UNEMPLOYMENT

MEREDITH B. GIVENS, *Chairman*

Papers presented at this session were received from J. Douglas Brown and Corrington Gill. These papers exceeded in length space limitations, and are too excellent for abbreviation. Consequently, a brief statement of the contents of each paper is presented here, and it is hoped that the papers may be printed in full elsewhere.

Mr. Gill sets forth the statistical and research program of the Federal Emergency Relief Administration. The paper showed the amount of relief and the distribution of these items according to states. The sources from which relief funds come are also shown, together with a map that indicates the sources by states. The statistical work under the Civil Works Administration is sketched, with the Civil Works research projects briefly outlined.

Mr. Brown describes the problems faced by the Advisory Committee on Railroad Employment. The Committee was appointed to study the prevention, compensation, or reabsorption of labor displaced as the result of the proposed program of rationalization of the railroads of the country. The purpose of the study is "to determine the best means by which employment in the American railroad industry can be brought into, and maintained at, a proper balance with the needs for the safe, efficient, and economical handling of the optimum potential traffic, provided that the employees of the roads be treated in a manner which is just and reasonable, and that the railroad industry as a whole be maintained on a self-sustaining basis." The study covers such subjects as proposals for the prevention of displacement; proposals for the compensation of displaced workers, such as pensions for those superannuated, preretirement annuities, dismissal compensation, and unemployment benefits; and proposals for hastening reabsorption of displaced laborers.

SESSION ON BANKING AND MONETARY LEGISLATION

CONTROLLED INFLATION

By E. W. KEMMERER
Princeton University

The deliberate inauguration of a policy of inflation with the object of raising prices to a much higher level—a level that has not prevailed for a period of several years—is the unique policy recently adopted by our national government which has made current in the United States the term “controlled inflation.” From various official and semi-official statements it is generally believed that the price level which the Administration expects to restore is approximately the wholesale price level of the year 1926, which is about the level that prevailed from the summer of 1921 through the year 1929. This would involve an increase of wholesale prices of about 40 per cent from their October, 1933, level.

Under the broad inflation powers given to the President by Congress under the Agricultural Adjustment Act of 1933 and other powers vested in the Federal Reserve system, there are, broadly speaking, three different methods by which the volume of our circulating media can be greatly expanded by executive authority. They are:

1. Direct expansion in the volume of paper currency, notably of United States notes or greenbacks, Federal Reserve notes and Federal Reserve bank notes, all of which are now unlimited legal tender.

- (a) The volume of inconvertible greenbacks outside of the Treasury, which is now (October 31, 1933) 848 million dollars, the President is authorized to increase at his discretion up to 3 billion dollars, with no increase whatever in the 150 million dollar gold reserve fund created by the Act of 1900.

- (b) Federal Reserve notes may be issued without limit against satisfactory collateral including government debt and notes collateralized by government debt. Under existing legislation there is no longer any limit beyond which the Federal Reserve Board cannot go, in its discretion, as an emergency measure, in reducing the reserve requirements of the Federal Reserve banks against both Federal Reserve notes and deposits.

- (c) Federal Reserve bank notes may be issued up to the amount of 100 per cent of any United States government securities held as collateral or 90 per cent of certain other specified security. Inasmuch as no cash reserve whatever is required to be held against them, except a 5 per cent redemption fund which itself may be kept in any form of paper money as well as in specie, there is no legal limit beyond which these notes may not be issued.

2. Direct expansion of deposit currency.

Under this heading would come the expansion of member bank reserves and therefore of deposit currency through the open-market purchases chiefly of government securities made upon the initiative of the Federal Reserve system. Here, likewise, there is no legal limit to possible emergency expansion, since the Federal Reserve Board may suspend all legal reserve requirements of the Federal Reserve banks, and, with the approval of the President, may decrease or increase without limit the reserve requirements of all member banks, while the reserve itself held by Federal Reserve banks against deposits may be in any form of United States money whatsoever. Furthermore, under the Thomas Amendment the President is authorized to direct the Secretary of the Treasury to enter into an agreement with the Federal Reserve authorities to purchase in the open market additional United States government securities in an aggregate sum of 8 billion dollars, paying for them with Federal Reserve credit.

8. Monetary debasement.

The third method of expanding the volume of our circulating media which the President is now authorized by law to adopt is the debasement of our legal gold unit of value. He may effect this debasement by reducing the weight of our gold dollar by any amount up to 50 per cent and/or by authorizing the unlimited coinage of silver as well as of gold at any ratio he may determine upon.

These are the three principal methods of inflation which Congress has placed in the hands of the President. There is absolutely no limit to the extent of the inflation which might be legally brought about through the exercise of these powers.

Up to the present time the efforts of the Administration to inflate have been directed chiefly to the expansion of Federal Reserve credit through the open-market purchase of government securities and through the purchase of gold.

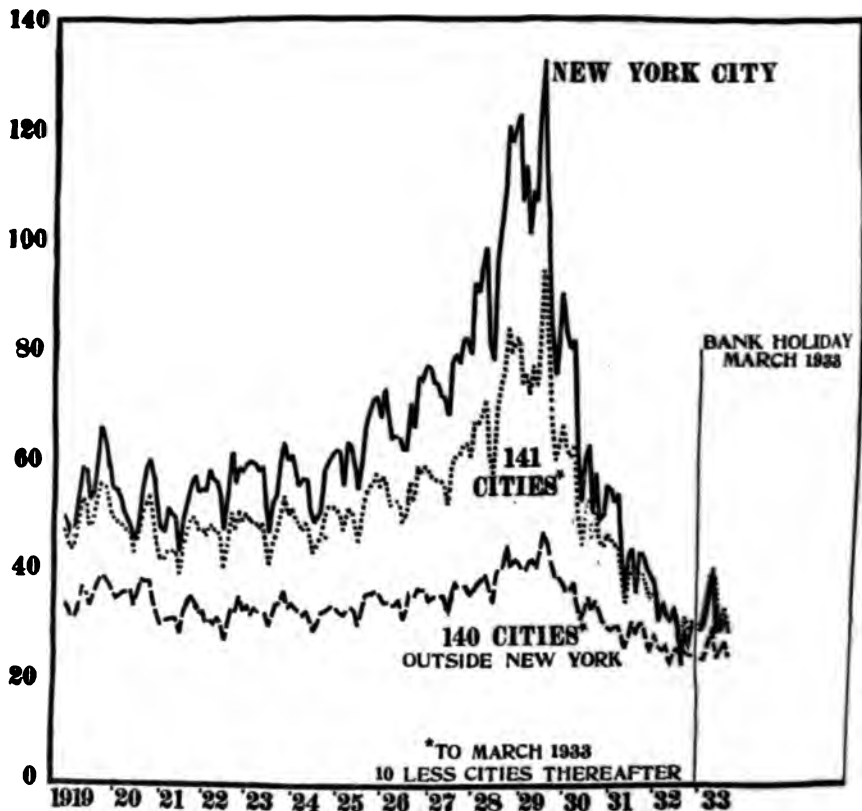
Inflation and Deposit Velocities. The price level, which is to be raised about 40 per cent through the release, as needed, of currency and credit from this enormous reservoir of inflation, is itself the resultant of the interaction of the forces of the supply of goods and services to be exchanged on the one hand, and of the supply of circulating media, money and deposit currency, on the other hand. The supply of money, however, and the supply of bank deposits circulating through checks are both items of two dimensions; namely, volume or quantity, and velocity or rate of turnover.

The plans of the Administration for controlled inflation all seem to contemplate the effecting of the control through the regulation of the volume of money and of bank deposits. When expansion is desired, more money and more bank deposits are to be fed out, and they are to be

drawn back as needed whenever the inflation becomes excessive or threatens to get out of control. In these plans for controlled inflation the problem of controlling the velocities has been generally ignored. It is with this question of controlling the velocities that I am chiefly concerned. Unfortunately, we have no reliable data of a continuous character concerning the velocities of monetary circulation. It will be necessary, therefore, to confine ourselves to a discussion of the velocities of bank deposits, which constitute in fact probably something like 90 per cent of our circulating media.

Wide Variability of Velocities. It is in these velocities that the great variability in the supply of our circulating media is found. From the boom year 1929 until the present time, even including the period of the bank crisis of 1933, the extreme range in the monthly figures for the volume of money in circulation was from 4,476 million dollars in April, 1930, to 6,545 million dollars in February, 1933, a range of 46 per cent of the low during five critical years which covered boom, crisis, and de-

ANNUAL RATE OF TURNOVER OF BANK DEPOSITS



pression; while the extreme range in the monthly volume of demand bank deposits in all reporting member banks was between 14.4 billion dollars in November, 1929, and 9.6 billion dollars in March, 1933, representing a range of 50 per cent of the low. Contrast these fluctuations with the wide fluctuations shown on the chart on the previous page in the velocities of bank deposits.

From January, 1929, to the present time, the range in the monthly velocities for New York City was from 132.7 in October, 1929, to 22.8 in November, 1932, a range of 495 per cent of the low. That for the 140 cities exclusive of New York City was from 46.6 in October, 1929, to 23.1 in November, 1932, a range of 102 per cent of the low. In the summer of 1930 the New York City velocity dropped in one month from 81.8 in June to 61.5 in July. Wide variations in velocities are not limited to our large financial centers, nor are they restricted to periods of nation-wide booms and depressions. Variations are often large in our smaller cities, and substantial ones may frequently be found at times when business conditions throughout the country as a whole are considered fairly normal. A reference to the figures for velocities in certain cities by month from 1919 to 1925 cited by Carl Snyder¹ will substantiate this statement. In Albany, for example, the velocity varied from 23.6 to 32.1 between February and March, 1923. In Rochester it varied from 18.0 in August, 1924, to 26.0 in September and 30.7 in December. In a small city like Binghamton, New York, we find a variation from 18.4 in August, 1925, to 23.0 in November—a range of 25 per cent in three months in a fairly normal year.

Business Confidence. Much is heard nowadays of the importance of restoring confidence in the business situation and prospects on the part of our business leaders upon whose initiative we must depend for the forward movement which will spell economic recovery. Is there any relationship in the movements of these deposit velocities and of business confidence? I have attempted in a broad way to find an answer to this question, or, perhaps more correctly speaking, to do a little pioneer work in that direction, with a hope that others will find the lead one worth following. Some of the results of this study are shown on the Chart on page 95 on "Business Distrust and Velocities of Bank Deposits in 141 Cities."

What is this business confidence which is such an important factor in our modern economic life? No one has ever satisfactorily defined it and probably no one ever will. It is a volatile, intangible thing which we all recognize as a factor in the economic life of a world of human beings. Twenty-five years ago in discussing the important influence of business confidence upon the factors in the equation of exchange, I

¹ *Business Cycles and Business Measurements*, Appendix, Table XXV.

quoted from an anonymous writer in *The Biblical Repertory*² the following classic description of credit, which covers what I have in mind by the words "business confidence":

.... credit is a state of mind, a belief. Involving a state of mind, it is subject to all those causes of fluctuation which influence the minds and control the beliefs of men. It is therefore as sensitive and volatile as the subtle causes which sway human belief. It is often affected by ignorance, error, and misapprehension. And in regard to the subject in hand, it has this peculiarity—not only that it propagates itself by that sympathetic and epidemic excitement which so largely sways communities of men, but intelligent persons, who see no ground of distrust, are compelled in their actions to follow the lead of the ignorant, who are seized with an unreasoning panic, and thus swell the current, which having opened a crevasse, deepens and widens it, until it has spread devastation far and near.

If confidence cannot be satisfactorily defined, it is even more true that it cannot be satisfactorily measured. None the less, there are some indices which afford one a rough general idea of its movements, particularly during periods of boom, crisis, and depression. In the study previously mentioned on the relationship of confidence to some of the factors in the equation of exchange, an attempt was made by the writer to measure roughly the fluctuations in business confidence for the period 1879 to 1908, by means of an index number based upon two items; namely, (1) the percentage of business concerns in the country which failed each year and (2) the average liabilities of the concerns failing. In explaining this index it was said:³

Probably the best criterion of business confidence is to be found in the study of commercial failures. When times are good and business of all kinds is prospering there are comparatively few failures, and those as a rule are for small amounts; but let prospects of poor crops arise, international complications become imminent, an influential financial establishment become insolvent, prospects arise for government interference with the tariff, or with the currency; or let anyone of a hundred other things happen which may serve as the signal for retrenchment and liquidation; one of the first and surest manifestations of financial stringency is the failure of a number of concerns which have been carrying on business in a reckless way or without sufficient financial backing. Commercial failures are contagious. They are both effect and cause of stringent conditions in the world of business and finance; and their number, together with the amount of liabilities involved, marks in a rough way the progress and decline of periods of business depression.

Despite the great progress during the last quarter century in the development of statistical indices for measuring the fluctuations in economic phenomena, we still have no index number of business confidence currently published, and it is probably still true that the best criterion readily available of fluctuations in business confidence or of its reverse, "business distrust," is to be found in our current figures covering the percentage of business concerns failing and the average liabilities of the concerns failing. That is the basis of the index number of business distrust shown on the following Chart.⁴

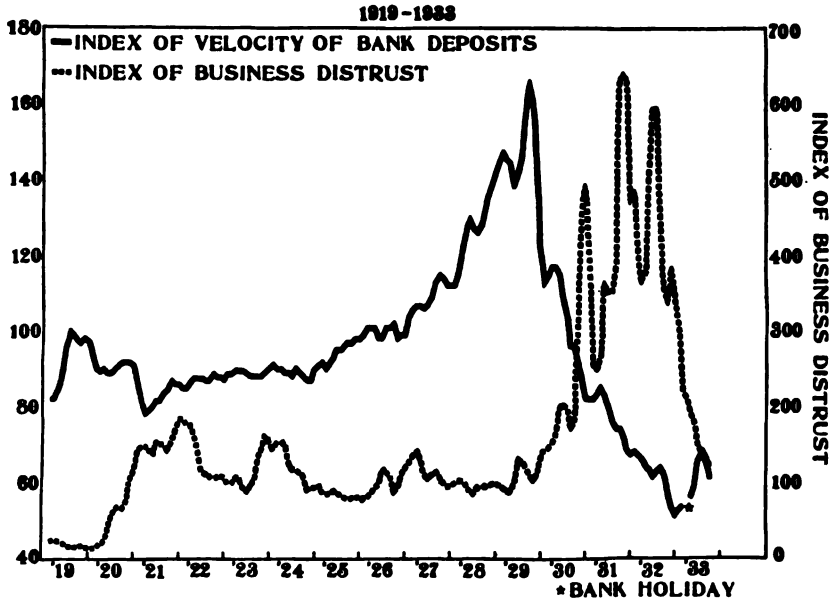
² Vol. XXXIV, pp. 332 et seq., and 323.

³ *Money and Prices*, pp. 121 and 122.

⁴ Method of Computing Index Number of Business Distrust: The figures for the number of failures and for the average liabilities of concerns failing are the averages

BUSINESS DISTRUST AND VELOCITY OF BANK DEPOSITS IN 141 CITIES

INDEX NUMBERS, 1926=100
SEASONAL ALLOWED FOR
3 MONTHS MOVING AVERAGES



Although the index of business distrust has been extended on the part into the year 1933, so as to cover the first ten months of the year, it is obvious that for the present year commercial failure data is no criterion of the movements in business distrust. The reason is that the mercury in the thermometer during the present year has been jugged. The government, in its efforts to control the crisis and to re-

month of the figures compiled by *Dun* and by *Bradstreet* down to the end of the calendar year 1932. Since the amalgamation of these two concerns in January, 1933, no table (*Dun's*) is published. The index was calculated on the basis of the year 1926 as 100. Figures were then corrected for seasonal variations. The index of seasonal variations was calculated by taking a mean of the month after dividing the series through by a twelve-months moving average centered at the sixth month. The means for the months were then adjusted to their own average as 100. For calculation of the annual, monthly data from 1919 through 1932 were used.

By dividing the total liability series by the series for the number of concerns failing, a series was obtained representing the average size (as measured by liabilities) of concerns per month. An index number was calculated from this average liabilities series. This index was then deflated by the Bureau of Labor Statistics Index Number of Wholesale Prices to eliminate fluctuations due to variations in the value of the dollar. The resulting series is the deflated series of average liabilities.

The deflated index of average liabilities was then used as a weight for the index of percentage of concerns failing—in other words, Index 1 was multiplied by Index 2. The resulting index is our Index of Business Distrust, which is assumed to be in its elements the exact opposite of business confidence.

store prosperity, has by numerous measures for the protection of the debtor been making it increasingly difficult for bankruptcies legally to take place. For example, the number of failures in September and October of this year was only slightly over two-thirds the number for the corresponding months of the boom year 1929 and the average liabilities of these failures were only about four-fifths as great. The very low figure shown on the Chart for business distrust in the year 1933 is therefore not a correct representation of the situation.

Velocities of Bank Deposits. The monthly figures for the velocities of bank deposits of 141 cities (130 since March, 1933) are those computed by the Federal Reserve Bank of New York. The seasonal has been allowed for and the figures have been adjusted to a 1926 base. The figures are those for demand deposits in weekly reporting member banks.

Inverse Correlation of Business Distrust and of Velocities of Bank Deposits. In order to smooth out minor fluctuations, both graphs have been computed on the basis of a three-months moving average. Although inspection of the graph will show that there is no high inverse correlation as far as month to month fluctuations are concerned, a decided inverse correlation is shown in the trends in times of depression and of recovery. Note, for example, the movement of the graphs from 1920 to 1922 and from October, 1929, until near the end of 1932.

The data were grouped in a correlation table which showed considerable correlation between the two series for the period 1919 to 1933 as a whole. The relationship appeared to be non-linear; therefore the correlation ratio was calculated with varying lags, with the following results:

Lag	Value of η_{xy}	Probable Error of η
(1) No lag	.7084	.0254
(2) 1 Month Lag of Velocity	.7815	.0238
(3) 1 Month Lag of Business Distrust	.7164	.0249
(4) 2 Months Lag of Velocity	.7712	.0206
(5) 8 Months Lag of Velocity	.7819*	.0200

The correlation ratios obtained seem to indicate a fair degree of association between the two series. Inspection of the curves and the correlation tables, however, show that this fair degree of association exists chiefly in the two periods 1920 to 1922 and 1929 to 1932, inclusive.

* The higher value of η with a three months lag of velocity is due entirely to the displacement of one point from one column to the next, which changes the calculations and overbalances the lower figures for all the other columns. Therefore the two months lag seems to be more significant. The formula for the correlation ratio is:

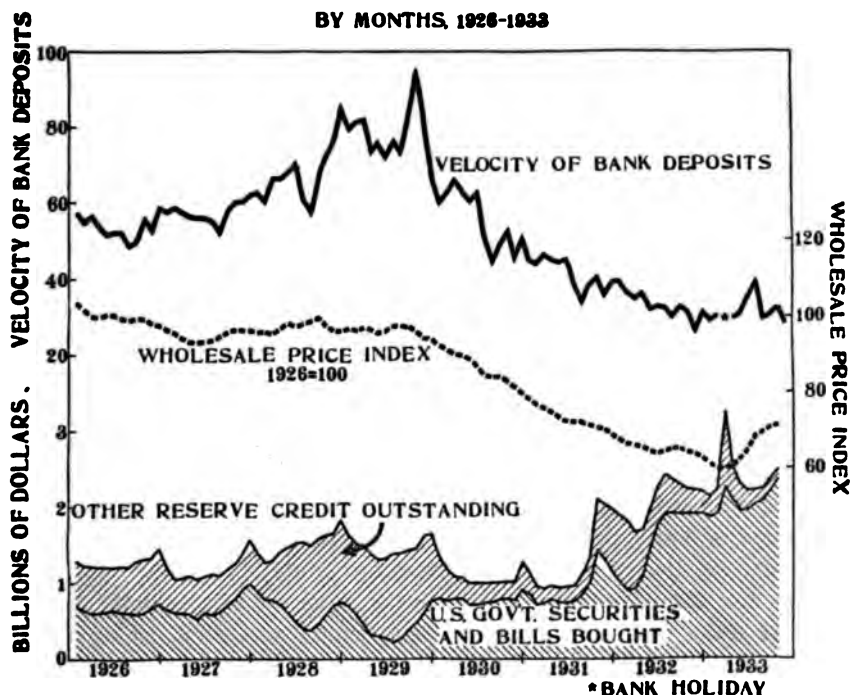
$$\eta_{xy} = \frac{\sigma_{my}}{\sigma_y}$$

where σ_{my} is the standard deviation of the means of the various columns about the arithmetic mean of all the y 's, and σ_y is the standard deviation of the entire y distribution.

and in these cases depends on the trends of the curves in opposite directions. One may say, therefore, that in critical times during which there are pronounced movements of business distrust, there is a strong tendency for bank deposit velocities to move inversely with business distrust and directly with business confidence. The velocities of bank deposits then rise when business confidence rises and fall when business confidence falls. The movements, moreover, both in business confidence and in velocities at such times are wide.

Velocities, Federal Reserve Credit, and Prices during Present Crisis. Our next task is to consider briefly the relationship during the present crisis among the three items: (1) velocities of bank deposits; (2) Federal Reserve credit outstanding; and (8) wholesale prices. This relationship is shown on the following Chart.

**VELOCITY OF BANK DEPOSITS IN 141 CITIES, WHOLESALE PRICES
AND FEDERAL RESERVE CREDIT OUTSTANDING**
BY MONTHS, 1926-1933



The figures are on a monthly basis and cover the years 1926 to 1933 (through October). Velocity figures have been adjusted to the 1926 base, but the seasonal has not been removed. They are the month-to-month figures and not moving averages. The lower shaded portion of the Chart shows the amount of reserve credit outstanding and the lower

section of that shaded portion shows the volume of United States government securities and bills bought in the open market by the twelve Federal Reserve banks.

In February, 1982, the Federal Reserve banks inaugurated a policy of heavy purchasing of United States government securities, with the object of glutting the member banks with funds and of thereby forcing an expansion of member bank credit and of deposit currency, and of compelling a rise in the price level. This was a strenuous effort at refiation through credit expansion. From the week ending February 27, 1982, to the week ending August 18, 1982, the average daily holdings of United States government securities of the twelve Federal Reserve banks rose from 740 million to 1,851 million dollars, representing an average weekly net increase of approximately 46 million dollars. After the middle of August, this policy of gorging the market with credit was discontinued for a time and an opportunity was given the market to digest what had been fed to it. The open-market purchases from late February to the middle of August represent probably the most extreme attempts at deliberate deposit currency inflation that the world ever saw. As we know, the member banks did not expand their loans to the public as a result of this heavy inflow of reserve funds, but rather reduced them and at the same time used these additional funds for liquidating their indebtedness to the Federal Reserve banks and for piling up excess reserves. From the time these heavy open-market purchases were discontinued in August, 1982, to the present, the Reserve banks' holdings of government securities have been exceedingly high and during the greater part of this year have been moving upward. Recently open-market purchases on a large scale were renewed for a time. Partly as a result of this policy, our member banks have been having recently by far the largest volume of excess bank reserves in our entire Federal Reserve history, while the borrowings of the member banks from their Federal Reserve banks have declined until they have reached almost negligible figures. Meanwhile, the downward trend of the velocities of bank deposits, which began in the autumn of 1929, has continued to the present time with no important interruption, except during the second quarter of this year. The deposit velocity rate for the 141 cities last month (November, 1988) was 28.2, which was the lowest of any month since the figures began to be computed in 1919, except the one month of November, 1982, when it was 26.8. Furthermore, leaving out of account New York City, and taking only the figures for the 140 cities, we find that the November velocity of 23.7 was the lowest of all but five monthly figures since January 1, 1919, and all of these five occurred since July, 1982. The lowest of them was less than 5 per cent below the November figure. The decline in velocities, in other words,

has much more than compensated for the volume of credit expansion resulting from the open-market operations of the Federal Reserve banks, and the price level has continued strongly downward during practically all of the period of these heavy open-market purchases, except for the upward movement from April to October of this year.

The business and financial worlds are afraid of inflation and they rightly look upon these extensive open-market purchases as powerful governmental efforts exerted in the direction of inflation. This fact weakens confidence in the business situation and prospects; or, in other words, it is a factor in increasing business distrust. The increase in business distrust, as we have found, in a period of tension like the present, exerts a strong influence in bringing down the velocities of deposit circulation. In other words, there are powerful psychological forces at work that tend to cause our efforts to reflate by the expansion of our deposit currency to defeat themselves and actually to bring about a net contraction of our circulation through resulting reductions in velocities.

Velocities now are extremely low because of the low condition of business confidence. A healthy restoration of confidence would tend to bring them back to normal.

Public Distrust in Currency Causes a Feverish Rise in Velocities. Confidence, however, or its opposite, distrust, is of two varieties in its relationship to this problem. When distrust in the business situation and prospects is widespread, velocities are low, provided there is a reasonable amount of confidence on the part of the public in the country's money. On the other hand, under the same conditions, when business distrust is low or business confidence is high, velocities are normal or high. If, however, the public lose confidence in their money and a widespread distrust centers on the country's circulating media, then there occurs the well-known "flight" from the monetary unit. In such a situation, the public's philosophy is: "Buy goods and securities quickly because the prices of everything are going up. Dispose of your money and of your bank deposits quickly because their value is going down." In cases where the public are rapidly losing confidence in their money, as they did in Mexico in 1916 or in Austria and Germany shortly after the Armistice, the velocities at which the money and bank deposits circulate often reach fantastic figures. Everyone who receives money tries to get rid of it for goods as fast as he can, for prices are continually rising, sometimes being marked up many times a day. Money which normally circulates at the rate of perhaps two or three times a month may move several times in a day. Dr. Hjalmar Schacht, in speaking of the German experience in 1922, said:⁶

⁶ *The Stabilisation of the Mark*, p. 68.

The rush to get rid of cash as soon as possible further led to an extraordinary increase in the rapidity of the circulation of money. Everyone who had payments to make, endeavoured to make them as quickly as possible, before he could be caught by the depreciation. . . . Clearing (Giro) transactions were immensely extended at the expense of cash transactions, which were too slow.

And again he said:¹

A typical consequence of the inflation, which very soon made its appearance and rapidly assumed the character of a permanent phenomenon, was the so-called "refuge in material values." No one wished to hold cash, and all flung themselves into the acquisition of goods, shares, foreign currencies or any other stable values on which they could lay hands. This development contributed, of course, largely to the rise in the prices of commodities and shares and the quotations of the foreign exchanges. The speculation in stocks and shares and foreign currencies spread to the smallest circles of the population. The indiscriminate hoarding of commodities created an artificial increase of the demand.

The great speed at which bank deposits in Germany circulated at the end of 1922, nearly a year before the inflation had reached its extreme form, is shown by an investigation made by the Reichsbank:

. . . . from which it appeared that at the end of 1922, taking forty days (about) as the average rate to run of a bill discounted by the Reichsbank, its proceeds were employed during that period on an average for seventy-five payments, and they never remained credited to one Giro account for so much as three-fifths of one day.²

If the public once loses confidence in its money, controlling inflation is like controlling a hurricane. At such a time the volume of the circulating medium is of secondary importance. The public are seized by a panicky fear and the velocities which are whipped up into fantastic figures dominate the situation. The fact that these velocities in critical times are to a large extent a question of volatile class psychology is one reason why controlled inflation on any large scale, at least for a long time to come, is bound to fail.

¹ *The Stabilization of the Market*, p. 68.

² *Ibid.*, p. 75.

THE BANKING ACT OF 1933—AN APPRAISAL

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About twenty years after the adoption of the Federal Reserve Act the United States has found it needful to reconsider the foundation ideas of its banking system. The necessity is galling to its pride, and destructive to its self-confidence and belief in its own infallibility. The Reserve Act has been lauded in terms of utmost absurdity and egotism by party spokesmen, as well as by economists who had condemned it while it was in process of preparation. It has been described as an absolute safeguard against bank failures, as the greatest and most constructive statute in American history, as a complete protection against the danger of panics and depressions, and as a charter of financial liberty.

It never was entitled to any of these encomiums, and those who framed it never thought it was. The Act in question was adopted by Congress as the result of a series of compromises. It was not the work of any one person or even group of persons; but it represented the outcome of lengthy struggles about banking, and was practically the best that could be had at the time of its adoption. Popular government moves slowly. It is influenced by emotion and hysteria more than by thought or sober reflection, and this is especially true when its financial authorities and thinkers are governed by faddism and special interests, unwilling to lead, and disinclined to share in the work of shaping new ideas, as was the case at the time of the adoption of the Federal Reserve Act. American democracy has also a strongly developed egotism. It is unwilling to admit error or to correct it while special interests soon adjust themselves to new legislation and are then as hard to dislodge as they were when remedial action against them was first suggested. Hence the failure to continue, develop, and improve the legislative ideas which were represented, as their first fruits, by the Federal Reserve Act.

A good deal of responsibility for subsequent inattention and even for erroneous thinking must be assigned, certainly during the first five years of the history of the Federal Reserve Act, to the existence of the World War and the immediate process of "clearing up" afterward. Much more must be assigned to the refusal of our economists to pursue the subject with vigor. Still more, probably, must be awarded to the indifference and prejudice of the groups which first took in hand the administration of the act. Be the responsibility what it may, the fact remains that, although the Reserve Act has been amended on the average more than once for every year of its existence, these amendments have been, in

nearly all cases, futile or worse. They have pandered to special banking interests, whittled away the safeguards against banking danger which had been set up in the Act itself, and have added new features of laxity to the concessions which had been forced upon its framers. Hence, the necessity of witnessing: (1) a period of bank failure without parallel, in which the Reserve system and its managers sat silent, unwilling even to suggest a remedy; (2) a debauch of credit, likewise without parallel, in which the administration of the Reserve system spent its time in quarrels as to the proper application of remedial measures, while special interests made ducks and drakes of the resources which had been piled up in gold as the outcome of war and the consequent disturbances of trade; and finally (3) an unprecedented panic and depression in which all sorts of emergency or first-aid measures have been suggested and urged, and in notable instance tried—usually with the result of further deteriorating and impairing the situation.

These facts of recent financial history are indisputable, even if disagreeable; there would be little purpose in recalling them save as an essential background for the history and comprehension of the Banking Act of 1933. The new measure is an anomaly—an attempt to correct obvious evils growing out of the misuse of the Federal Reserve Act by applying remedies which ought long ago to have been attempted if at all. What needs to be understood first of all is the fact that it is an anomaly—an Act which ignores the changes of banking practice that have occurred during the twenty years of Federal Reserve experience. Not only this, but it also ignores or rejects the “new era” notions of banking theory which have been urged by some reasoners. It adheres to the older conceptions of self-liquidation in commercial paper, of “liquidity,” of limitation of speculation, of separation between commercial and industrial financing, and many others which were entertained by those who formulated the original Federal Reserve Act—which are still, indeed, entertained by them. This may be accounted unto the new Act and its framers for righteousness; but the fact is that it will not succeed much better than the Reserve Act itself unless enforced in a more sympathetic and understanding way, and unless applied by a banking community willing to make radical changes in its own technique.

So far as I myself am concerned, I am under no illusions and I do not expect such changes to occur at once. I raise, therefore, in my own mind the question whether what we shall get may not be a complete reversal of our banking legislation in order to bring it into sympathy with the present trend toward fiat currency, frozen loans, and overspending by governments, into correlation with speculative advances, fictitious acceptance issues, and other favorite thoughts of the day. I well understand that those acts are most successful which are most

sympathetically administered by officers who believe in and support them; and I seriously question whether we must not try a long course of experience with some type of hybrid investment banking crossed upon orthodox central banking, before we can get the experience for which we have always paid so dearly. But meantime, the Banking Act of 1933 remains. It is a fact. What will become of it?

The Federal Reserve Act was guilty of three fundamental omissions: (1) mandatory provision for dealings with the public along the lines permitted to all central banks and practiced by most; (2) mandatory provision for foreign trade and exchange operations; (3) definite insistence upon thorough bank examination and supervision.

The Federal Reserve Act and its amendments, likewise, made three fatal concessions to special interest demands: (1) grant of authority to national (and hence member) banks to accept time deposits; (2) grant of permission to national (and hence member) banks to engage in fiduciary business; (3) authorization of the undertaking of investment banking duties.

There are many other defects, some of major character, and omissions—some of first class importance—but none which compares with those enumerated. These which I have mentioned were all realized and regretted by the framers of the Act. The outcome was the result of political concession. The spirit was willing but the flesh was weak. This is history and as such may be rapidly passed over as aside from the present standpoint. It should be noted, of course, that these frank acknowledgments of error imply an assumption not warranted by subsequent experience that more rigid, upright, and self-consistent provisions could and would have been carefully and strictly administered. In fact the less satisfactory provisions described have not themselves even been applied as they might have been.

Let us, however, glance briefly at the course of events, as contemporaneously observable. The failure to insist upon the pursuit of commercial practices in banking and the pretense of an absence of commercial paper in member banks led to the development of the huge speculative account consisting of advances to large member banks upon their "straight" notes with collateral security which was so notorious as a primary cause of the speculative debacle of the late twenties. Inability, or indisposition, to trade with the public, afforded one cause of lack of (available) eligible paper. Absence of any mandatory requirement that foreign agencies be undertaken and, hence, failure to buy and deal in foreign exchange led directly to the anomalous operations whereby Reserve banks undertook to receive the funds of foreign banks and bankers, including central banks, and to invest them in local paper, usually bankers' acceptances with Reserve bank endorsements. Thus two distinct and almost equally

dangerous elements in the distorted banking situation developed themselves. Lack of directors' responsibility for the condition of members enabled timorous Reserve bankers to protect themselves by asking for collateral security against member bank advances, without paying much attention to the condition of the member banks themselves, and without more than *pro forma* sharing in the examination or analysis of member bank portfolios.

On the other hand, the permission to accept time deposits led to deterioration of member condition, since much that was really demand liability was classified and carried as time, while acceptance of trust or fiduciary operations and duties led to the gradual development of investment banking points of view; and these culminated in the irresistible movement which led to the adoption of the McFadden Act of 1927, wherein investment banking operations were given official sanction and the banks of the country were definitely launched upon a career of underwriting and promotion. Add to this the fact that, by indifference and carelessness to what was going on, successive national administrations had permitted the growth of the so-called security affiliates for speculating in stocks, while lax and spineless comptrollers of the currency had suffered the banks to get into bad and illegal condition, unchecked by any supervisory activity of the Reserve institutions—and the situation is clearly depicted in outline. This is a depressing situation, especially when we consider that there was at no time any demand for the adoption of remedial banking legislation, and that the only requests made by a national administration for two decades past have been such as were intended to loosen credit for emergency reasons without attempting to strike at the basic evils of practice that had invaded the entire banking structure.

It is thus possible to see with what conditions banking legislators had to deal when they undertook, in 1930, consideration of remedial measures. There was no time during the two and a half years succeeding the initiation of this undertaking when the group thus engaged has had any encouragement, either from the Federal Reserve system, the American Bankers Association, or the financiers and economists of the country. No wonder, then, that they have felt obliged to stick closely to purely remedial measures, or what seemed to be such, and have not permitted themselves to attempt those broader elements of effort which ought long ago to have been considered. No wonder either that the Act, in order to make its difficult way through the mazes of Congressional discussion, has had from time to time to accept as integral features of itself measures (of which the guaranty of deposits may be taken as the chief) that are anything but defensible on ordinary grounds of banking principle. Explain it as we may, the Banking Act of 1933 thus appears as a con-

tinuation of the ideas that lay at the root of the original Federal Reserve Act, while it largely fails or refuses to undertake those changes that were already called for when the Reserve Act was being drafted, and that still call as loudly as ever for attention.

The Banking Act of 1933 contains the following outstanding provisions:

1. Protection of the depositor, accomplished by so-called guaranty on the part of all the banks.
2. Protection of the stockholder, accomplished by regulation of investments and portfolios.
3. Protection of the public, accomplished by limitation of the uses of Reserve credit in speculative channels.
4. Protection of the bank, accomplished by alteration of Reserve Bank powers.
5. Increase of banking responsibility, accomplished by separation of affiliates and removal of bank officers in certain cases.

Let us analyze these major provisions more closely, though still generally.

— The protection of the depositor has been shown by experience to be an essentially necessary step. Before the "banking holiday," it had already been credibly estimated that there was an army of some 6,500,000 depositors in closed banks whose deposits were \$2,500,000,000. To this had been added the enormous number of institutions reported at the end of summer close to 2,800 which had been closed or placed in the hands of conservators. The original "Glass bill" proposed to afford relief in these conditions through the well-established and defensible method of providing for prompt liquidation through a corporation organized for that purpose and authorized to take over the assets of failed institutions, at estimated value, settle and dispose of them, and pay the balance, if any, back to the bank, meanwhile providing immediate dividends for creditors. The proposal was objected to by many, and might not have succeeded, had not a much more radical proposal—the guaranty of bank deposits—been substituted for it. Thereby it was sought to satisfy what had for many years been the favorite demand of so-called radical elements in Congress, now strengthened by the fact that tremendous losses had been suffered by depositors, and particularly by those whose interests were supposed to be particularly menaced—the time depositors. Whether this plan will be successful or not, remains to be seen. There will be a better basis for it than that which has been afforded by the various state deposit guaranty schemes, but there are many reasons for doubting its chances of success. Of these, the most extreme is the fact that, combined with the other phases of the Banking Act, it brings to a head what is really a crisis in American banking, and

may compel, if fully and faithfully carried out, a complete reorganization of the whole system of banking in the United States.

Although it is the interests of the depositor that are usually, if not always, put to the front in current discussion of banking danger, the risks of the stockholder are if anything more extreme. He has, theoretically, had to carry a double liability and even though such liability has, in many instances, proved largely theoretical, it has, in all events, cost the stockholder all he has put into the bank in a large number of cases of failure. In others, a substantial amount has been contributed by the stockholder, voluntarily or otherwise, or sometimes has been put up by him for the sake of quieting a doubtful or dangerous banking situation and securing a distribution of assets. Yet, the stockholder is never considered entitled to much sympathy, and his failure to exercise an impossible oversight upon those who are operating the bank has been the subject of constant reflection and even ridicule. The new Act, accordingly, undertakes to apply some very few obvious rules of prudence in regulating the character of the investments the bank may carry. These have already been roundly criticised and attacked by bank representatives, and yet they are far less numerous and far less troublesome than are the regulations which have for long years past been applied to the discounting of commercial paper by the banks. It is regrettable that the commercial banks of the nation should be buyers of investment securities at all; but since they are in the time-deposit business, perhaps such action is not to be avoided. In that case, a wise regulation of the uses of their funds, parallel to the control exerted by the state in connection with commercial banking, would seem to be not only defensible but essential—banking management being what it is in a nation given to the continued practice of so-called “free banking.” Certainly the prescriptions applied in the new Act are of a moderate sort, far less onerous than those applied to savings banks in most of our states. The fact that they have been roundly criticized and even abused by our bankers is not at all to their discredit.

Perhaps more important than all these meticulous provisions is, however, the attempt of the new Act to protect the public itself from the aggressions of the Reserve banking system. The studies and analyses which accompanied the drafting of the new measure have shown that the Reserve banks are not only of little help to the smaller member banks, but that, at times, they are a complete menace. No aspect of their existence has been more truly subject to well-founded criticism and attack than their failure to preserve their funds for the use of their members according to need, and their permission to the larger banks to borrow these funds with government securities as collateral, for use in stock market manipulation. A statistical analysis of the operations of one of the largest of the Reserve banks during a recent year, made for

The Senate Banking Committee, shows that scarcely any of its advances were for the genuine relief and aid of the ordinary member bank, and that nearly all were employed in furnishing the larger members with cash for speculative transactions. The provisions of the Banking Act intended to deal with this evil are several in number. The first and most obvious is the prohibition imposed upon Reserve banks to continue the making of collateral loans after they have been warned not to do so in cases where the recipient member banks are making advances for market speculation. The original act called for an automatic prohibition—no increase in rediscounts to be allowed to a bank which was enlarging its advances to speculators. This, however, as a result of the opposition of the Reserve Board and of the bankers was given up in favor of the present provision which confines the prohibition to cases where a warning against such continued advances has been issued by the constituted authorities. The second phase of the protection sought for is found in the power bestowed upon the Reserve Board to determine what proportion of a bank's total advances shall be made in the form of collateral loans on stocks and bonds.

By the use of these two correlative provisions, it should be possible for a competent Federal Reserve Board to protect the individual bank from being carried along into a morass of speculative credits against which it has not the information to protect itself. The contention that there is often some reason to believe that those whose natural duty it may be to exert such protective measures may not be sufficiently alert or informed to do their duty is well-founded, but amounts merely to a call for more competent and efficient management on the part of government authorities. There is none more important among the negative prohibitory provisions of the new measure than this. At the same time, there is no provision more difficult to enforce. When is a bank, or the generality of banks, lending "too freely" to the stock market or to individuals on the collateral furnished as stocks and bonds? It is a question which must be answered by the banking authorities in some way and in a way much more definite than any thus far afforded. But, whatever we think of bank loans of this sort, no one would deny either that they can be overdone, or that at times they have been thus overdone. If the Reserve banks either cannot or will not regulate them, can the Federal Reserve Board do so? That is the question the new Act raises. It is a fair posing of the problem.

The Board of Directors of the Federal Reserve Bank of New York, in a letter addressed to the Banking and Currency Committee of the Senate, calls attention to the fact that there are really two banking systems in the United States—one designed to furnish fixed capital; the other, short-term funds—and it asserts that the former is quite as important as the latter, urging accordingly, that the latter be fully con-

sidered in any reorganization of the banking system. This assertion may be accepted, at least as a basis for discussion; but the question will remain who is to draw the line between the operations of these two banking systems. The new Act directs the Federal Reserve Board to draw it. Whether that be easy or not, the line must be drawn at some time in the future. The effort of the Act to draw a sharp dividing line between investment and deposit banking and to keep the investment banking houses out of deposit banking is in line with the whole genius of American banking and with the spirit and intent of the Federal Reserve Act. It is fully warranted and amply supported by precedent and theory. Whether it be, as asserted by some, out of harmony with the spirit of the times, and in opposition to what has happened in our banking system of recent years, is another question. This discussion is not intended to deal with such questions on their merits, but merely to place the Act of 1933 in its correct light historically and analytically.

The Banking Act of 1933, moreover, attempts to protect the member bank from the invasions and usurpations of the Reserve system itself to a certain extent. Of recent years there has been an absolutistic tendency for Reserve banks to spend much of their time in open-market operations, designed to assist the coming of "some far-off divine event" in international financial intrigue, or some imagined plan of monetary reconstruction which has usually turned out to be a mirage at best. The Act, accordingly, undertakes to fix the responsibility for such manoeuvres and so to protect the member bank against the use of its funds in subterranean ways not publicly presented or understood. It places the conduct of open-market policies in the hands of the Federal Reserve system in a new body, the Open Market Committee, in which all Federal Reserve banks are to be represented, and gives the Federal Reserve Board controlling power in directing these transactions. There was no provision in the new Act against which certain Federal Reserve influences directed a more bitter fight than this one, and none on which their argument was less cogent. In a similar way, the Act directs that negotiations with foreign central and other banks shall be conducted under the supervision of the Federal Reserve Board, and shall not be undertaken at all without its permission, while their results shall be regularly reported to the Board and by implication to Congress. Here are provisions to which no sound exception can be taken, and which are calculated to serve as a usual protection against usurpation and assumption of dictatorial financial powers.

The final protective effort of the Act is directed toward the safeguarding of the general stability and responsibility of the members. Under this head, we may enumerate the abolition of the security affiliates and the separation of directorates so as, if possible, to recreate the older type of bank board when at its best—a group of non-partisan,

disinterested men who have an eye single to the welfare of the community. Although much of the controversy of the measure raged about these provisions, they are so simple and obvious in their significance, so self-evidently for the general benefit of the banking interests of the public, that I think we need not even discuss them in detail. If they prove ineffective in details of operation and application, the fact is unfortunate but does not reflect upon their general purpose and purport.

This is merely a thumbnail sketch of a great Act, inclusive in terms, detailed in technique, conceived to remedy, in some measure, a serious emergency and confronting at the very moment of its inception, a crisis in American banking. It is a worthy effort at rescue. Its fault lies in the fact that it does not go the root of the situation. "Drastic" as it has been described, far-reaching as it unquestionably is, it is not a solution of the banking problem, for the good and sufficient reason that it does not eradicate the causes of evil in our system. A very brief reference to the reasons which underlie this statement must suffice. First of all, the outstanding result of this Act is to give to the Federal Reserve Board, a body possessed of enormous powers which it has left largely in abeyance or transferred to others, still greater and more inclusive authority which it is now asked to use sanely and constructively. The Act makes this requisition at a time when the Board has apparently reached low-water mark in prestige and probably in ability. Organized as a nonpolitical body with membership fairly evenly divided in political preference and in no sense bitterly partisan, it is now composed 100 per cent of Democrats, recent appointees having been selected primarily on political grounds. Organized at the start with an imposed requirement that the membership consist partly of men qualified in banking by knowledge and experience, the constituent act has been deprived heretofore of that limitation; and appointments have been made without regard to it. Its high aspirations to become a "supreme court of finance" have not been realized, and at critical moments in American banking life, it is not even called into consultation by administrators. Can such a Board assume and fulfill the duties that an exacting Congress has placed upon it against its own will? Will such a Board become wise and forward-looking in banking, and courageous in meeting emergencies, public-minded in consulting the nation at times when it should know the nature of the crises by which it is confronted? We can only ask these questions and leave them for the future to answer.

The Act, moreover, assumes that it will be possible to fasten upon the nation a banking system conceived along classical lines, devoted to the maintenance of equality in the use of credit, fair distribution of banking service, and the observance of those qualifications usually included under the head of "sound banking." Let this be definitely understood: There was never a nation that could be democratic without paying some at-

tention and giving some time and thought to the realization of democratic ideals; there was never a nation that could have a sound banking system without studying it and insisting that it be carried on along the lines upon which it was founded. The United States cannot have such a system unless it be willing to make the sacrifices which alone will ensure its establishment and maintenance. The insistence of the nation upon indulgence in stock gambling of an extreme type, corporation finance of a shoddy and unsafe sort, and extravagant, costly, and hazardous government finance, apologized for on the ground of "emergency," will never have a sound banking system. Drastic penalties, extreme prohibitions, careful and meticulous safeguards, will never attain the end sought by those who want a well-organized, carefully-managed banking system. Punishment never creates ability or honesty.

The Banking Act of 1933, moreover, has failed at a critical point. It could succeed in accomplishing the difficult ends at which it aims only by providing itself with the requisite mechanism for their attainment. Of this, branch banking upon a fairly comprehensive scale was an essential. Yet, political prejudice and hostility succeeded, early, in making it apparent that nothing thorough in the way of branch banking could be expected, while practical political compromise was active up to the very end of the history of the measure, and has succeeded in making it plain that only under unexpected circumstances can the shadowy branch provisions of the law as adopted be expected to give much aid in the establishment of a stronger system of banking. The Act seeks great transformations; it refuses the powers and mechanisms necessary to bring them safely and effectively into operation.

If what I have said be considered in any way a correct appraisal of the Banking Act of 1933, it must be clear that the measure is transitional, and that it will be needful, at no distant date, to undertake a rather complete rectification of our banking system. When or how such a result will be brought about is still obscure. It may happen as the result of the inexpert tinkering of "progressive" minds, or be the outcome of a general demand on the part of bankers weary with the banking ineptitude of the past decade, or it may originate with business men who want and must have access to credit properly granted, or it may possibly come through the public-spiritedness of a few men who go on devoting their minds to the subject and taking up arms against a sea of troubles and perhaps, by opposing, ending them. It cannot now be indefinitely delayed. Our national banking system is obsolete, our Federal Reserve system in incapable and unsympathetic hands, our examination system hamstrung by politics and prejudice. The Banking Act of 1933 is a protest against a banking world gone wrong. Whether it will be heeded or not is to be seen; but if heeded, much more will be essential in the way of legislation before that heed proves effective in results.

SOME STATISTICS ON THE GOLD SITUATION¹

By G. F. WARREN

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Since the gold problem is of such general interest, it is desirable to examine the statistical position of gold. Of course, in the space of a brief paper only a few of the many important points can be considered and these only very inadequately.

Gold Supplies. Cassel, Kitchin, Woytinsky,² and others have shown that for more than seventy-five years before the War, any period in which the world monetary stocks of gold did not increase a little more than 8 per cent per year was a period of falling commodity prices in gold standard countries. Before the War, prices in England and in the United States were in close adjustment with this long-time ratio. If this relationship had continued until 1928, world monetary stocks of gold would have been expected to support a price level about 10 per cent below 1914 prices.

The writers³ have shown that for seventy-five years before the War, the ratio of world monetary stocks of gold to the world physical volume of production of basic commodities equaled wholesale commodity prices. Short-time deviations from this relationship occurred, but there was no trend away from it.

The Sauerbeck-Statist index number of commodity prices in England in 1914 was 2 per cent higher than this relationship would call for and the United States Bureau of Labor Statistics index was 2 per cent lower than this relationship would call for.

From 1914 to 1928, the world monetary stocks of gold increased 88 per cent. World physical volume of production also increased 88 per cent. If the seventy-five year pre-War relationship had continued, pre-War prices would have been expected.

The reason for the difference between this result and the calculation by Cassel and others is that before the War, the physical volume of production was increasing at the rate of 8.15 per cent per year, but that production of commodities was slowed down by the War.

Some persons have believed that there was, or would be, a world-wide increase in the efficiency with which gold stocks were used and that a

¹ This paper was jointly prepared by G. F. Warren and F. A. Pearson.

² G. Cassel, *The Theory of Social Economy* (1924), p. 447. J. Kitchin, *The Supply of Gold Compared with Prices of Commodities*, Interim Report of the Gold Delegation of the Financial Committee of the League of Nations, Document C, 375, M 161, September, 1930. W. Woytinsky, "Das Rätsel der langen Wellen," *Schmollers Jahrbuch*, 55 Jahrgang, Viertes Heft, p. 30, 1931, maintains that world gold stocks must increase 3.142 per cent per year to maintain stable prices.

³ G. F. Warren and F. A. Pearson, "Money and Prices," *Farm Economics* 74, p. 1685, Feb., 1932. G. F. Warren and F. A. Pearson, *Prices* (1933), p. 76.

given gold supply could suddenly support a price level 50 per cent above that which seventy-five years of experience would indicate. The writers have found no indication of a sudden increase in the gradual growth of efficiency in the use of gold, and therefore have, since 1918, been stating the conclusion that commodity prices would return to pre-War or lower.⁴

The reason for expecting prices to go below pre-War was that after a period of monetary chaos, inefficient use of gold was to be expected. This subject is further discussed later in this paper.

Gold Production. Since the discovery of America there have been four periods of high gold production. The central points of the first three periods were about 1550, 1750, and 1858.

More gold was produced in 1858 than in any subsequent year for forty years. The fourth period of rapid increase in gold production began in the nineties and continued to 1912. Apparently, the rapid increase was then over. Production did not increase very rapidly from 1910 to 1914. Production fell from 22,605,000 ounces in 1912 to 15,452,000 ounces in 1922. Much of this drop was due to the low value of gold. This makes it impossible to determine what the course of production would have been had there been no war. Since the price collapse in 1929, recovery has occurred and production is somewhat more than in 1912. Of course, normal world business is far greater than it was in 1912 so that gold production is not keeping pace with the normal growth of business.

The writers have shown that for seventy years before the War, any period in which yearly gold production did not equal about 5.6 per cent of monetary stocks⁵ was usually followed by a period of falling commodity prices. During this period, the production of commodities was rising at about 3.15 per cent per year.⁶ A 5.6 per cent production was sufficient to provide for industrial uses and increase monetary stocks rapidly enough to support the price level. Present gold production is less than 4 per cent of the world monetary stocks. World monetary stocks of gold are probably a little above 600,000,000 ounces. A production of 5.6 per cent of this amount would be more than 33,000,000 ounces.

It is, of course, probable that world production of commodities has been so disturbed that after recovery has occurred, the former rate of increase will not be resumed for some time, but if pre-War relationships were to hold, the present gold production would be expected to result in a price decline of about 1 per cent per year after prices were adjusted to the gold supply. In any event, the present rate of gold production

⁴G. F. Warren and F. A. Pearson, *Prices* (1933), pp. 117-23.

⁵*Ibid.*, p. 105.

⁶G. F. Warren and F. A. Pearson, "The Physical Volume of Production in the United States," *Cornell University Agricultural Experiment Station Memoir 144*, Nov. 1933, p. 23; *Prices* (1933), p. 47.

would not be expected to cause gold to lose in its exchange value for commodities after this value comes into adjustment with present gold stocks.

Gold production for 1932 is estimated at 23,718,000 ounces⁷ or only 5 per cent greater than the output twenty years previous. So far as can be learned by consulting engineers in the gold mining field, there is nothing in the known gold fields to call for any phenomenal increase in production.

In spite of the unemployed who have gone to gold-mining and the highest exchange value of gold for commodities that has occurred since England adopted the gold standard, more than a century ago, the gold output for 1933 promises to be no more than the output for last year.

The present high price of gold in nearly all countries and the high exchange value of gold for commodities are stimulating the search for gold and may result in gold discoveries, but there is no assurance as to the number of years or decades that may be required. There is an increase in the working of low grade ores, but the output from such sources is limited.

A distinction should be made between the stimulus that arises from a high price for gold and from a high exchange value for commodities. The former will gradually wear off, but the latter is a continuing force so long as gold has a high exchange value for other things.

The world is dealing with an acute situation that must be met in months, not decades. Over a long period of time, production is a very important consideration, but probable variations in gold production are of small consequence when considering the next few years.

Industrial Uses of Gold. During the seventy-year period before the War, the world use of gold for other than monetary purposes increased nearly as rapidly as the use of other basic commodities. In a period when gold had a high exchange value for commodities, the use in industry was checked. In the seventy-year period, nearly 56 per cent of the production was added to monetary stocks.⁸ In the five-year period before the War, 53 per cent of the production was added to monetary stocks.

Monetary Demand for Gold. There appears to be no escape from the conclusion that prices in pre-War gold currencies cannot be expected to be higher than pre-War unless this situation is brought about by some unusual and spectacular decrease in the demand for monetary gold relative to business. This is the real problem on the gold side of the price question.

It is, of course, possible that some important countries will definitely discontinue the use of gold as money and definitely discontinue their ef-

⁷ "Gold Production," *Federal Reserve Bulletin*, Vol. 19, No. 11, p. 694, November, 1933.

⁸ G. F. Warren and F. A. Pearson, *Prices* (1933), p. 101.

forts to maintain gold reserves. This might be done by the remonetization of silver or the adoption of a paper standard. While there is discussion of continuing off-gold, there is as yet no indication of any discontinuance of the demand for gold by any important country. In fact, gold is the most popular subject of discussion in nearly every country.

It is also proposed that coinage be discontinued and that gold be kept in bars that are so costly as to make it difficult to own one, and that these bars be used only in international transactions. Discontinuance of coinage is probably desirable and provision should be made for preventing a run on the gold supply, but too much should not be expected from this. Gold must be released for industrial uses and it will be difficult to have all the secondhand gold return to the mint, difficult to compel the turning in of all new gold, difficult to prevent persons from following the age old tradition of purchasing jewelry and plate as a storehouse of wealth. Nations and individuals desire some concentrated non-perishable product which they can hold. It is true that this desire is less prevalent in America, but by this fact there is less to be gained by trying to overcome it. In the more prosperous countries, savings are more likely to be invested in homes, savings banks, bonds, and life insurance; but a large part of the world's population still desires to store its savings in precious metals. It is probable that after such a period of monetary chaos as the world has recently experienced, nations and individuals will bid more vigorously for the privilege of having gold. At the present time, the world looks on France and the United States as the champion hoarders.

Nations have experienced war as well as monetary chaos. They found their metallic reserves to be of great value for war purposes. It is highly probable that the desire to build up these reserves will continue to be very keen.

There are many factors tending to cause inefficiency in the use of gold. Many communities are without banks. It will take time to establish these. Many individuals have lost their savings in banks, and may prefer to be their own bankers. Charges for the use of checks and discontinuance of the payment of interest on deposits check the growth of the use of banks. For some years, bankers will favor the maintenance of high bank reserves. All these things point to a probable check in the former rate of expansion of bank credit per dollar of gold.

For many years before the War, there was a steady growth of bank credit per dollar of gold in the United States and a steady decline in the monetary circulation per dollar of gold. The sum of the two showed a gradual increase. For the five years preceding the establishment of the Federal Reserve system, monetary circulation and bank deposits per dol-

lar of gold averaged \$11.01. For the five years 1923 to 1927, the average was \$11.56. In 1920, the overexpansion of credit brought the figure to \$14.92 and in 1929 it reached \$18.89. Apparently, it is unsafe to build up too great a pyramid of credit. Credit as well as paper money may be fiat.

The arguments that are now used to indicate that the gold supply is sufficient to restore the price level are the same arguments that were used to indicate that prices in gold would not fall.

Why Were Prices High? We find no statistical basis in efficiency in the use of gold or in the world supply of gold to call for prices above pre-War in the period from 1914 to 1929. Why then were prices so high? Apparently, the reason for this was low demand for gold. On this point, there is an interesting historical parallel.

When the French Revolution broke out, France drifted into paper inflation. The wild inflation of this period frequently has been described.* The influence on prices in other countries is less well known. Being no longer in demand for monetary uses, both gold and silver lost value and drifted elsewhere. Prices on a metallic basis rose 46 per cent from 1790 to 1795 in the United States and rose 84 per cent in England. Ultimately a large part of Europe was involved, and prices in the United States and England rose still higher.

The United States was off the metallic standard for a short period during the War of 1812, but the currency returned to par in March, 1817. Prices remained more than 50 per cent above the level of 1790 until England attempted to return to the gold standard, a process which was completed in 1821. Prices in both countries fell precipitously nearly to the price level of 1790.

In the similar situation this time, the continent of Europe discontinued bidding actively for gold, and prices of commodities in the United States more than doubled. They remained at 40 to 50 per cent above pre-War until England, France, and other countries returned to the gold standard.

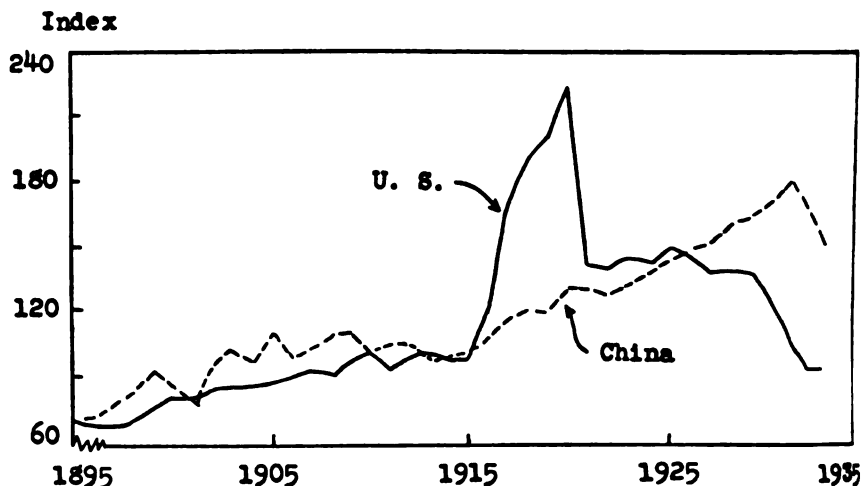
There is one significant difference. In the Napoleonic War period, Europe used both gold and silver as money and prices in neutral countries in both gold and silver rose.

In the World War period, only gold-using countries were involved and only gold-using countries had inflation and deflation. Prices in China continued their long-time gradual upward course. They showed no indication of the inflation of 1920. They rose rapidly from 1922 to 1931. Since that time, they have fallen nearly to the 1926 level. The writers

* A. D. White, *Fiat Money Inflation in France. How It Came, What It Brought, and How It Ended*, April, 1876.

believe that the major factor in the rise in prices was the reduced demand for monetary gold and that the major factor in the decline in prices was the return of demand.

CHART I



INDEX NUMBERS OF PRICES IN CHINA AND IN THE
UNITED STATES, 1895-1938
Pre-War=100

The gradual rise in prices in China which began about 1885 continued without the inflation that occurred in gold-using countries.

During the Napoleonic War period, both gold and silver were used by the countries that left metallic standards and inflation occurred in silver- as well as in gold-using countries. When the metallic standards were re-established, deflation occurred in both silver and gold countries.

Merely being off the gold standard does not necessarily mean low demand. Thirty-four countries are off the gold standard now, but most of them are vigorous bidders for gold. Europe was not actively bidding for gold during the war period.

The writers have anticipated that gold would acquire more than its pre-War value with the attempts to return to the gold standard, and for fifteen years have been stating the conclusion that prices would return to pre-War or lower.¹⁰ The arguments now being presented to indicate that a given quantity of gold with a given volume of business can support a price level 50 per cent higher than the same gold would have supported before the War, are the same arguments that were used to

¹⁰ G. F. Warren and F. A. Pearson, *Prices* (1933), pp. 117-25.

ite that prices would not fall. We think them equally unsound in cases.

the conclusion so frequently stated in the past we believe still holds it, provided the former gold-using world returns to the gold standard, prices expressed in any pre-War gold currency will be below pre-war for the next decade, or longer, unless unforeseen phenomenal gold discoveries are made.

Prices in Various Countries. Prices for August in various countries shown in Table I. There are great differences in the commodities included and weights used in the various index numbers. In spite of this the prices expressed in pre-War gold currencies show a high degree

TABLE I

WHOLESALE PRICES OF COMMODITIES IN VARIOUS COUNTRIES FOR AUGUST, 1933
Pre-War=100

	Base Period	Number of Commodities	Index Number August 1933	Gold Divisors August 1933	Prices in Pre-War Gold Currencies August 1933
<i>Family-basic-commodity index numbers</i>					
Kingdom (Statist).....	1913	45	96	1.48	65
States (Statist).....	1913	†	94	1.37	69
lands.....	1913	48	73	1.00	73
<i>Family-basic-commodity index numbers</i>					
lia.....	1910-14	92	134	1.86	72
celand.....	1909-13	180	135*	1.86*	72*
m.....	April, 1914	126	501	6.94	72
.....	1913	126	397	4.92	81
.....	1913	140	278	3.67	76
rk.....	1913	118	126	1.82	69
.....	1913	160	108	1.58	68
<i>Commodity index numbers</i>					
ny.....	1913	400	94	1.00	94
.....	1913	502	108	1.45	74
States.....	1910-14	784	102	1.37	74

† Table VI.

similarity except for the German index. While the German currency sensibly kept at par, the operation with "stalled marks" undoubtedly influences prices.

Prices of basic commodities in various countries are shown in Tables II and III, and in Chart II. Prices declined with great rapidity from 1914 to 1922. Since December, 1921, the decline has been less rapid. Basic commodities throughout the world are about two-thirds of pre-war prices, or at less than half the prices of 1926.

TABLE II
INDEX NUMBERS OF WHOLESALE PRICES OF BASIC, OR LARGELY BASIC, COMMODITIES
IN VARIOUS COUNTRIES*
In currency

	Nether- lands	United Kingdom	Sweden	Canada	France	Italy	United States
Base Period	1913	1913	1913	1913	1913	1913	1913
1926	145	148	—	157	—	—	146
1929	142	135	130	153	624	451	136
1930	117	114	119	129	529	365	114
1931	97	98	103	97	400	295	90
1932	79	94	96	86	338	261	74
1932: Jan.	84	100	96	92	343	273	80
Feb.	83	102	96	92	346	273	79
Mar.	82	99	97	90	348	276	78
Apr.	80	97	96	89	343	267	75
May	79	94	97	87	335	258	72
June	78	91	98	84	327	254	70
July	76	93	98	85	327	249	71
Aug.	75	95	98	86	339	259	74
Sept.	76	95	97	84	344	264	75
Oct.	77	92	95	82	337	256	72
Nov.	77	92	94	82	334	255	71
Dec.	76	91	93	80	337	253	70
1933: Jan.	75	92	91	80	336	257	70
Feb.	74	91	90	80	336	257	69
Mar.	72	91	91	82	338	256	70
Apr.	71	92	92	84	341	253	73
May	72	95	93	83	351	251	81
June	73	96	94	91	359	257	86
July	73	96	94	99	359	258	86
Aug.	73	96	91	95	355	253	94
Sept.	75	95	92	94	347	252	94
Oct.	75	95	93	90		248	93

* Netherlands largely basic; United Kingdom and United States tables 4 to 6; Sweden and France, raw materials; Italy, materials; and Canada, raw and partly manufactured materials.

Sauerbeck-Statist Index Numbers in England and in the United States. The only important index numbers in other countries that are approximately comparable with the United States Bureau of Labor Statistics all-commodity index are those for Germany and Canada. All other important index numbers are more heavily weighted with basic commodities. Over a long period of time, a basic index agrees very closely with the Bureau of Labor index of 784 commodities, but when sudden movements occur the differences are great. For example, an index for 80 basic commodities in the United States and the United States Bureau of Labor Statistics all-commodity index were identical for the years 1891, 1918, and 1926. Last February, the index of 80 basic commodities fell to 66, whereas the United States Bureau of Labor index stood at 87 when the five years before the War is called 100.

A serious error is made by comparing a British index of basic prices

with the United States Bureau of Labor index of all commodities. In order to obtain index numbers as nearly comparable as possible, an index number was prepared similar to the Sauerbeck-Statist index except that the weight given to flax fibre in the English index was added to cotton in the United States, and cottonseed oil was substituted for palm oil. The results are shown in Charts III and IV and in Tables IV to VI.

In 1926, the English index stood at 148 and the United States index at 146 when 1918 was 100. The latter figure was the same as the Bureau of Labor index when 1910-14 equals 100.

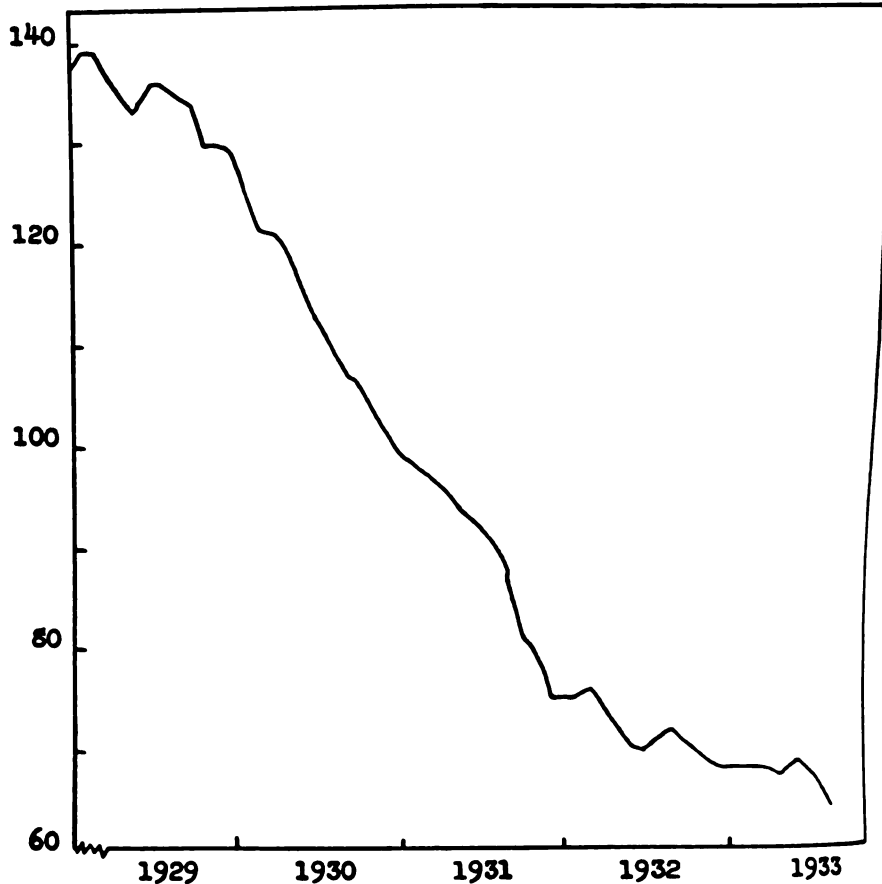
The English and United States index numbers were identical for the years 1928 and 1930. After England left the gold standard, her prices were fairly stable, but the rapid decline continued in the United States. In February, 1933, the English index stood at 91, and the United States index at 69. By July, 1933, both index numbers were at 96 and have since continued approximately alike.

TABLE III
INDEX NUMBERS OF WHOLESALE PRICES OF BASIC OR LARGELY BASIC COMMODITIES
IN VARIOUS COUNTRIES
In gold

	Nether- lands	United Kingdom	Sweden	Canada	France	Italy	United States	Average Seven Countries
Base period	1913	1913	1913	1913	1913	1913	1913	1913
1926	145	148	—	157	—	—	146	—
1929	142	135	130	153	127	123	136	135
1930	117	114	119	129	107	99	114	114
1931	97	91	97	94	81	80	90	90
1932	79	68	66	76	69	71	74	72
1932: Jan.	84	71	69	78	70	74	80	75
Feb.	83	72	69	80	70	74	79	75
Mar.	82	74	71	80	71	75	78	76
Apr.	80	75	68	80	70	73	75	74
May	79	71	68	77	68	70	72	72
June	78	68	68	73	66	69	70	70
July	76	68	66	74	66	68	72	70
Aug.	75	68	65	75	69	71	74	71
Sept.	76	68	65	76	70	72	75	72
Oct.	77	64	62	75	68	70	72	70
Nov.	77	62	61	72	68	69	71	69
Dec.	76	61	62	69	68	69	70	68
1933: Jan.	75	64	62	70	68	70	70	68
Feb.	74	64	61	67	68	70	69	68
Mar.	72	64	62	68	69	70	70	68
Apr.	71	65	61	68	69	69	70	68
May	72	65	60	66	71	68	69	67
June	73	67	61	67	73	70	72	69
July	73	66	60	67	73	70	69	68
Aug.	73	65	57	65	72	69	69	67
Sept.	75	61	55	61	71	69	63	65
Oct.	75	59	56	59		67	63	

CHART II

Index



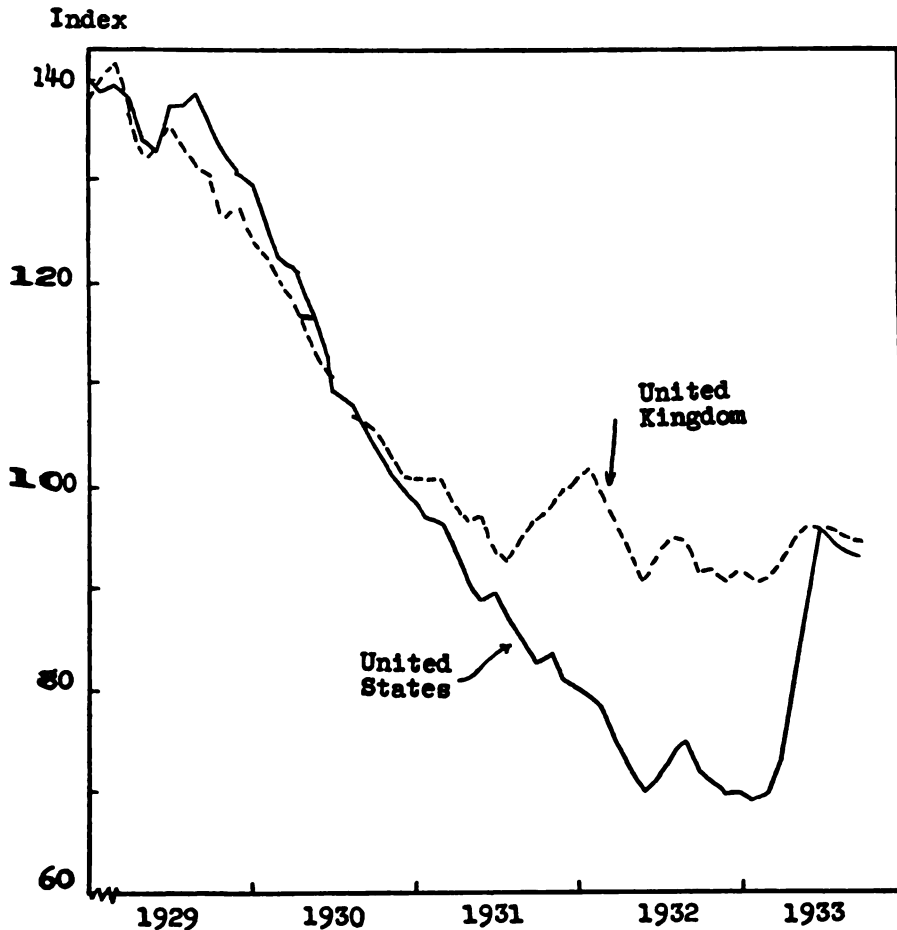
PRICES OF BASIC COMMODITIES IN SEVEN COUNTRIES EXPRESSED IN
PRE-WAR GOLD CURRENCIES, 1929-33
Pre-War=100

Prices in gold in the two countries have at all times been in approximate agreement. By having her currency depreciate in gold as the commodity value of gold rose, England maintained a stable price level. By depreciation of the gold value of the dollar in 1933, prices in the United States rapidly rose to the English level, although prices in gold were nearly stable or showed a slight tendency to decline.

The influence of raising the price of gold on basic commodity prices depends on whether the amount of gold required to buy commodities is changing. If a country raises the buying price of gold at about the

same rate as the gold value of basic commodities falls, it will maintain approximately stable commodity prices. This was the experience of England, Sweden, and many other countries for about two years. If a country raises the buying price of gold at a time when the gold value of basic commodities is stable, prices will rise in proportion to the advance in the price of gold. This has been the experience of the United States for about six months.

CHART III



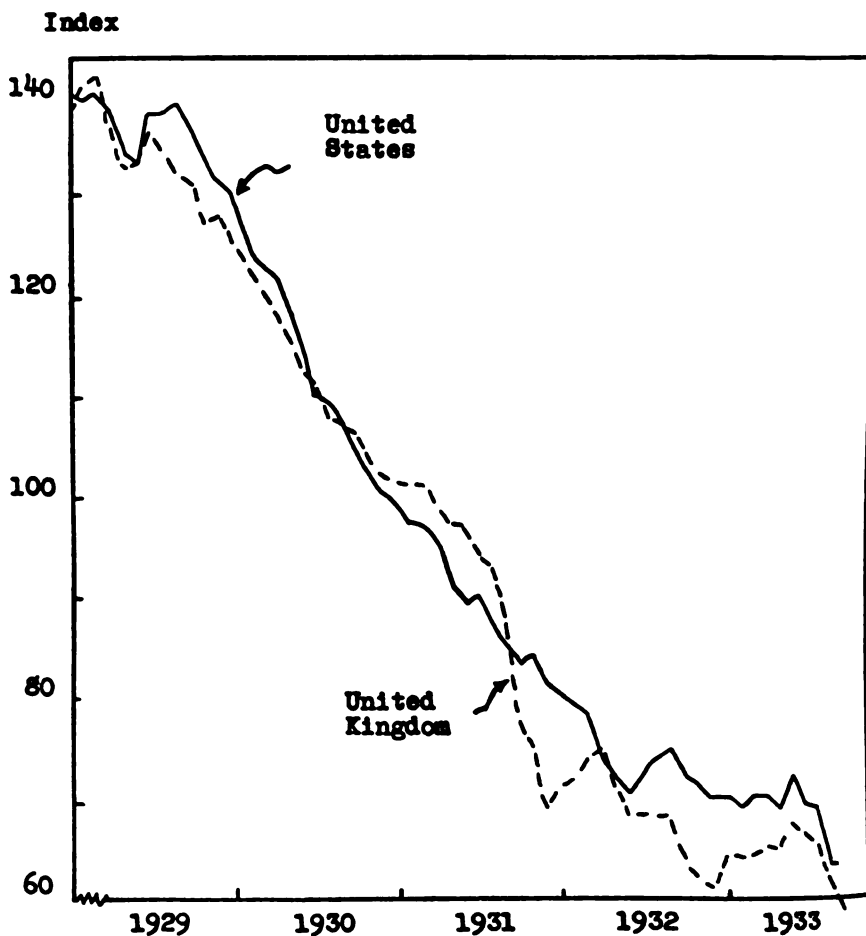
THE SAUERBECK-STATIST INDEX NUMBER FOR ENGLAND AND A
COMPARABLE INDEX NUMBER FOR THE UNITED STATES,
1929-33

1918=100
Prices in Currency

Prices declined with great rapidity from 1929 to 1932. Since that time the decline has been less rapid.

By suspending the gold standard and raising the price of gold in September, 1931, England stopped the decline in prices. By raising the price of gold in 1933, prices in the United States were brought to the English level.

Index numbers of prices in gold have been nearly identical in the two

CHART IV

THE SAUERBECK-STATIST INDEX NUMBER FOR ENGLAND AND A
COMPARABLE INDEX NUMBER FOR THE UNITED STATES,
1929-33

1918=100

Prices in Gold

TABLE IV

SAUERBECK-STATIST INDEX OF WHOLESALE PRICES FOR THE UNITED KINGDOM, 1924-33*
Prices in Currency
1913 = 100

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1924	161	163	161	161	160	160	163	162	167	172	171	174	164
1925	170	168	165	162	160	154	158	158	156	155	156	153	160
1926	152	150	148	148	148	147	148	149	151	154	154	146	148
1927	145	146	145	145	146	145	144	144	143	142	143	143	144
1928	142	142	145	148	148	144	142	138	137	137	139	139	141
1929	138	141	142	137	133	133	136	134	132	131	127	128	135
1930	125	123	121	119	116	113	111	108	107	106	104	102	114
1931	101	101	101	99	97	97	94	93	95	97	98	100	98
1932	100	102	99	97	94	91	93	95	95	92	92	91	94
1933	92	91	91	92	95	96	96	96	95	95			

* To convert from the 1867-77 base to the 1913 base, multiply by 1.176471.

countries. Prices in currency have differed about in proportion to differences in the price of gold. If a country raises the buying price of gold at a time when the gold value of basic commodities is rising, the price of commodities will rise more rapidly than the price of gold advances. If a country lowers the buying price of gold at a time when the gold value of basic commodities is rising, it will increase the rapidity of the decline in commodity prices.

Whenever prices change, prices of manufactured goods move slowly. Therefore, an index number like the United States Bureau of Labor index always lags behind any force that causes price changes.

Arrested Deflation, Reflation, Inflation. In all price comparisons, distinction should be made in these three situations. The action of England in 1931 stopped deflation.

In the United States the condition last spring was one of incomplete deflation. Prices of some manufactured goods, some salaries, freight rates, and utility charges had declined very little. The Sauerbeck-Statist

TABLE V

SAUERBECK-STATIST INDEX OF WHOLESALE PRICES FOR THE UNITED KINGDOM, 1924-33
Prices in Gold
1913 = 100

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1924	141	144	142	144	143	142	146	150	153	159	162	168	149
1925	167	165	162	160	160	154	158	158	156	153	156	153	159
1926	152	150	148	148	148	147	148	149	151	154	154	146	148
1927	145	146	145	145	146	145	144	144	143	142	143	143	144
1928	142	142	145	148	148	144	142	139	137	137	139	139	141
1929	138	141	142	137	133	133	136	134	132	131	127	128	135
1930	125	123	121	119	116	113	111	108	107	106	104	102	114
1931	101	101	101	99	97	97	94	93	88	78	75	69	91
1932	71	72	74	75	71	68	68	68	68	64	62	61	68
1933	64	64	64	65	65	67	66	65	61	59	61	63	63

TABLE VI

SAUERBECK-STATIST INDEX OF WHOLESALE PRICES FOR THE UNITED STATES, 1924-33
Prices in Currency*
1913=100

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1924	143	146	144	141	139	137	141	144	141	144	149	155	144
1925	160	158	157	151	149	149	151	153	153	153	156	155	154
1926	156	154	149	149	147	145	145	142	142	139	139	139	146
1927	138	137	133	133	133	139	149	141	140	140	139	139	139
1928	141	140	142	144	146	142	142	133	139	137	137	133	141
1929	140	139	140	133	134	133	133	133	139	136	133	131	136
1930	130	126	123	122	119	115	110	109	107	104	102	100	114
1931	99	97	97	95	91	89	90	87	85	83	84	81	90
1932	80	79	78	75	72	70	72	74	75	72	71	70	74
1933	70	69	70	73	81	83	86	94	94	93	94	93	86
Prices in gold													
1933	70	69	70	70	69	72	69	69	63	63	59	59	66

* For details of construction: Sauerbeck-Statist index of commodity prices for the United Kingdom and Comparable Index Numbers for the United States, *Farm Economics*, p. 1907, November, 1933.

The prices used in this calculation of the Sauerbeck-Statist index for the United States were obtained from the reports of the United States Bureau of Labor Statistics and the current data are being supplied through the courtesy of Dr. Isador Lubin.

index for the United States stood at 47 per cent of the 1926 level, whereas the Bureau of Labor index was 60 per cent of the 1926 index. Had deflation continued, these two index numbers would ultimately have come together. Reflation does not call for an equal rise in the two index numbers. Any force tending to raise prices would first have to overcome the unadjusted part of the prospective decline in the all-commodity index of the United States Bureau of Labor Statistics. A restoration of prices causes an approach to equilibrium in the price structure.

TABLE VII

PER CENT ADVANCE IN PRICES SINCE FEBRUARY

	Gold, Per Cent Above Par	25 Industrial Stocks	Sauerbeck-Statist Index of Wholesale Prices for United States	30 Basic Commodities	Fisher's Index	United States Bureau Labor Index	Prices Paid to Farmers for Food*	Retail Prices of Same Food as Pre- ceding Column
March	0.2	5	1	3	1	1	4	2
April	5	41	6	8	3	1	14	1
May	18	64	17	23	9	6	37	6
June	23	77	28	32	15	9	41	8
July	40	60	39	47	25	16	65	14
August	37	79	36	47	27	17	57	16
September	48	67	36	45	29	18	49	16
October	49	58	35	42	29	20	45	16
November	60	74		44	30	20	47	

* Prices are for the 15th of the month.

TABLE VIII
INCREASES IN SIX-MONTH PERIODS, UNITED STATES BUREAU OF LABOR STATISTICS INDEX
OF WHOLESALE PRICES OF ALL COMMODITIES
1910-14=100

Months ending	1916		1917		1918		1919		1920	
	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance
July	12	12	25	20	1	1	0	0	19	9
August	15	15	26	20	-1	-1	-11	-5	23	11
September	14	14	24	18	7	4	-7	-4	25	12
October	14	13	25	18	8	4	-5	-3	31	15
November	13	12	31	21	7	4	-1	-1	24	11
December	9	8	29	19	5	3	2	1	13	6
January	7	6	27	18	14	8	16	8		
February	7	6	25	16	11	6	19	10		
March	8	7	15	8	14	7	12	6		
April	12	10	2	1	12	6	9	5		
May	21	17	1	1	11	6	13	7		
June	23	19	0	0	6	3	14	7		

ice from April to October, 1933: 16 points, 18 per cent.

at the beginning of a price rise, prices of basic commodities, manufactured goods, and freight rates were in approximate equilibrium, and prices would bring about the usual maladjustments resulting from

TABLE IX
PERCENT INCREASES IN SIX-MONTH PERIODS, WARREN AND PEARSON INDEX OF WHOLESALE
PRICES OF THIRTY-BASIC COMMODITIES*
1910-14=100

Months ending	1916		1917		1918		1919		1920	
	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance	Points Advance	Per Cent Advance
July	14	14	42	33	-5	-2	-14	-6	18	8
August	18	18	39	30	-4	-2	-26	-12	20	9
September	20	20	37	26	10	5	-19	-9	17	8
October	19	18	33	21	5	2	-14	-7	21	9
November	12	11	41	25	1	0	-8	-4	20	8
December	7	6	51	30	0	0	15	7	5	2
January	6	5	53	31	5	2	37	19		
February	5	4	36	20	6	3	34	17		
March	7	6	23	12	8	4	19	9		
April	19	15	-3	-1	5	2	17	8		
May	36	29	-13	-6	4	2	15	7		
June	40	32	-15	-7	1	0	9	4		

ice from April to October, 1933: 23 points, 32 per cent.

* F. Warren, F. A. Pearson, and H. M. Stoker, "Wholesale Prices for 215 Years, 1720-1912," *Cornell University Agricultural Experiment Station, Memoir 142*, p. 76, November,

TABLE X
INDEX NUMBERS OF PRICES OF FIFTEEN COMMODITIES IN ENGLAND AND THE UNITED STATES
OCTOBER 16 TO DECEMBER 15, 1933
October 21 100*

	Prices in Currency		Prices of Gold		Prices in Gold	
	England	United States	England	United States Based on the London Market	England	United States
Oct. 16	100.1	100.5	100	100	100	101
Oct. 17	99.1	101.7	102	104	97	98
Oct. 18	99.5	101.2	103	102	97	98
Oct. 19	99.3	100.7	101	102	98	98
Oct. 20	99.6	99.9	100	100	100	100
Oct. 21	100.0	100.0	100	100	100	100
Oct. 23	100.2	101.5	101	103	99	99
Oct. 24	100.2	102.5	100	105	100	98
Oct. 25	99.9	104.3	101	106	99	98
Oct. 26	99.7	104.1	102	107	98	98
Oct. 27	99.5	104.5	102	106	98	98
Oct. 28	100.5	104.2	101	105	100	98
Oct. 30	100.3	105.1	102	107	98	98
Oct. 31	99.8	104.7	102	107	98	98
Nov. 1	99.7	104.3	103	109	97	97
Nov. 2	99.3	104.5	104	111	95	95
Nov. 3	100.5	105.3	104	111	97	97
Nov. 4	100.3	106.0	103	111	97	97
Nov. 6	99.7	106.7	103	111	97	97
Nov. 7	99.3	—	101	—	98	98
Nov. 8	99.4	109.4	103	113	97	97
Nov. 9	100.0	110.6	102	115	98	98
Nov. 10	99.7	110.3	101	114	99	99
Nov. 11	100.0	110.4	101	114	99	99
Nov. 13	99.9	111.0	100	115	100	100
Nov. 14	99.5	112.2	100	116	100	100
Nov. 15	98.5	112.2	100	120	99	99
Nov. 16	97.9	113.4	100	117	98	98
Nov. 17	98.2	111.9	100	115	98	98
Nov. 18	98.3	111.7	100	116	98	98
Nov. 20	98.1	111.9	99	116	99	99
Nov. 21	97.9	111.9	99	119	99	99
Nov. 22	97.5	111.3	98	117	99	99
Nov. 23	97.5	110.4	98	114	100	100
Nov. 24	97.4	110.4	98	113	99	99
Nov. 25	98.3	109.7	98	113	100	100
Nov. 27	97.9	108.1	98	110	100	100
Nov. 28	98.1	108.3	98	112	100	100
Nov. 29	98.2	108.4	98	112	100	100
Nov. 30	98.6	—	97	—	102	102
Dec. 1	98.1	108.7	97	112	101	101
Dec. 2	98.6	108.3	97	111	102	102
Dec. 4	98.1	108.1	97	110	101	101
Dec. 5	98.3	108.9	98	112	100	100
Dec. 6	98.1	108.1	99	112	99	99
Dec. 7	97.7	108.3	98	111	100	100
Dec. 8	97.1	107.8	99	112	98	98
Dec. 9	97.3	108.4	98	113	99	99
Dec. 11	97.8	108.4	99	111	99	99
Dec. 12	97.7	107.6	98	110	100	100
Dec. 13	98.0	107.1	98	109	100	100
Dec. 14	98.3	107.3	98	111	100	100
Dec. 15	97.9	108.2	98	111	99	99

inflation. If reflation were carried beyond the point at which price reach an approximate equilibrium, the price structure characteristic of inflation would appear.

Prices Since February. The gold standard was suspended internally March 5 and was suspended externally in April. From February to November, the price of gold rose 60 per cent.

From February to November prices paid to farmers for food products rose 47 per cent. The same food products at retail prices rose 15 per cent (Table VII).

Prices of thirty basic commodities rose 44 per cent; the Bureau of Labor index, 20 per cent; and Fisher's index, which gives less weight to manufactured articles, rose 30 per cent.

The rise in prices in the six months from April to October was one of the rapid advances of history (Tables VIII and IX).

In only one six-month's period during the World War did basic commodities show a larger percentage advance than that which occurred from April to October, 1933.

Prices Since October 21. A daily index of prices of fifteen commodities in the United Kingdom and for the same commodities in the United States is shown in Table X. From October 21 to December 15, prices of these fifteen commodities fell 2 per cent in England, but rose 8 per cent in the United States. The price of gold fell 1 per cent in England so that commodity prices in gold fell 1 per cent. Apparently the world value of gold in exchange for basic commodities has not changed greatly.

Prices in the United States rose 8 per cent whereas the price of gold rose 11 per cent¹¹ or prices in gold fell 3 per cent.

Prices of Gold. The prices of gold in various countries are shown in Table XI. Throughout the world there is a strong movement to raise the price of gold. A number of the countries off-gold have taken definite steps to raise its price.

Thirty-four countries are now off-gold and only two are attempting to maintain their pre-War gold currencies. A world-wide movement of

¹¹ Prices of gold for the United States are London prices in dollars because these are the effective prices. They apply when commodities are purchased or sold.

* The index numbers of prices for England include: cotton, spot, upland, Liverpool; cottonseed oil, refined, Hull; linseed oil, London; linseed cake, Hull; turpentine, London; rubber, October delivery, London; wheat no. 2, Manitoba, Liverpool; copper, standard, spot, London; tin, standard, spot, London; lead, spot, London; silver, in bars, London; tallow, Australia, Sept.-Oct., Liverpool; cheese, Canadian, new, Liverpool; pork bellies, clear, Liverpool; and lard, spot, Liverpool. The quotations were taken from the *Journal of Commerce*, New York City.

The index numbers of prices for the United States include: cotton, middling upland; cottonseed oil, December; linseed oil, spot carlots; linseed cake for export; turpentine, carlots; rubber, rib smoked sheets; wheat, no. 2 red; copper, electrolytic; tin, Straits Settlements; lead; silver; tallow, extra, loose; cheese, Wisconsin daisies, fresh; pork bellies, dry, clear, salted, boxed; and lard. The quotations, on New York markets, were taken from the *Journal of Commerce* and the *New York Times*.

The index is based on the average of fifteen relatives.

Index	Price
100	100
101	101
102	102
103	103
104	104
105	105
106	106
107	107
108	108
109	109
110	110
111	111
112	112
113	113
114	114
115	115
116	116
117	117
118	118
119	119
120	120
121	121
122	122
123	123
124	124
125	125
126	126
127	127
128	128
129	129
130	130
131	131
132	132
133	133
134	134
135	135
136	136
137	137
138	138
139	139
140	140
141	141
142	142
143	143
144	144
145	145
146	146
147	147
148	148
149	149
150	150
151	151
152	152
153	153
154	154
155	155
156	156
157	157
158	158
159	159
160	160
161	161
162	162
163	163
164	164
165	165
166	166
167	167
168	168
169	169
170	170
171	171
172	172

TABLE XI
INDEX NUMBERS OF THE PRICE OF GOLD IN VARIOUS COUNTRIES
Par = 100

	United States	Canada	England	South Africa	Argentina	Sweden	Norway	Australia	New Zealand	Denmark	Japan
Month of Dec. 1930	100	100	100	100	123	100	100	125	100	100	100
Month of Oct. 1931	100	112	125	100	186	116	121	163	138	122	101
Month of Oct. 1932	100	110	143	100	165	153	156	179	157	152	216
Apr. 18, 1933	103	122	142	142	170	143	153	178	177	176	239
July 18, 1933	146	151	146	146	167	157	160	183	183	180	240
Sept. 16, 1933	149	154	154	153	164	164	168	193	192	190	268
Oct. 20, 1933	141	146	152	151	167	162	166	189	189	187	258
Nov. 15, 1933	169	166	152	151	167	162	166	190	190	187	266
Dec. 16, 1933	157	156	149	148	199	159	163	186	186	183	252

this sort cannot be attributed to the acts of any one country. Such a movement must have back of it a driving force which is beyond the power of any nation to stop. The United States was the last of the thirty-four countries to succumb to this force.

The world gold situation of 1914-29 did not arise from a change in the world gold supply relative to world business, but resulted from a change in the world price level in gold compared with the world gold supply. It might be expressed as "too much price" rather than "too little gold." The only possible corrections are to reduce the whole price and debt structure or reduce the gold content of the gold currencies. Apparently the gold-using world must follow the latter procedure.

The Future Value of Gold. Gold, like every other commodity, has always been unstable in value. The most stable period in the English experience was from 1840 to 1914, but violent fluctuations occurred during this period. From 1840 to 1849, the purchasing power of gold for commodities in England rose 88 per cent. From 1849 to 1873, its purchasing power fell 83 per cent. From 1873 to 1896, its purchasing power rose 80 per cent. From 1896 to 1914, it fell 29 per cent.

The value of gold was particularly unstable during the two great European war periods. From 1789 to 1809, its purchasing power fell 46 per cent; and from 1809 to 1822, rose 78 per cent.

From 1914 to 1920, its purchasing power fell 54 per cent; and from 1920 to 1932, rose 220 per cent, at which time its exchange value for commodities was the highest in the history of the gold standard in England.

It is to be expected that gold will continue to have a high value for

some years. Whether or not this forecast continues to be true, it is practically certain that its value will fluctuate violently. The best that can be expected from the various control measures is to prevent the fluctuations from being as erratic as they might otherwise be.

With thirty-four countries off-gold, and several others that are likely to go off with the scramble to acquire gold; with the possibilities of sudden movement of gold from one country to another; with the great development of foreign investments which at any time may be shifted; with the shift of some of the densely populated countries of Europe from a creditor to a debtor position; and with war uncertainties and desires for gold for military purposes, decided fluctuations in the value of gold are to be expected; and it is to be expected that these fluctuations will be around a high value.

Some Americans think that being on gold regardless of the rate is all that is required. They seem to have forgotten our experience from 1929 to February, 1933. To set any figure that is to hold for a generation certainly involves a considerable element of risk, both to our prosperity and to the future of the gold standard. The gold standard might be unable to survive another unsuccessful world attempt to re-establish it. A proposal to provide some method for making future necessary changes in the price of gold without the necessity of long years of economic distress and political agitation would seem to be a conservative proposal. If the gold standard is to have a fair chance for survival, it requires some kind of a safety valve.

DISCUSSION

W. H. STEINER.—To my mind, controlled inflation well-nigh represents a contradiction in terms. It implies that a well-developed technique exists whereby inflation—or reflation, if you please—can be achieved at will. And it implies that, once attained, the objective can be maintained at will. Is this true today, when we take stock of our present understanding and equipment?

Professor Kemmerer rightly points out the difficulty faced in the problem of control because of the "two-dimensional" nature of the supply of money, whereby it involves both volume or quantity, and velocity or rate of turnover. The latter shows far greater variability than the former, and represents the crux of the problem of control. I think we can agree with analysis in these terms, regardless of the type of price theory we hold. It matters not whether we be advocates of the quantity theory in a rigid form, or bitter critics of any quantity theory.

More interesting to me is the fact that velocity represents what we might term the human, in contrast to the mechanical, phase of the problem of price control. It has always seemed to me rather anomalous that the newer economics regards economics as a science of human behavior as revealed in various institutions that man has developed, yet advocates a theory of control that regards man as a mere pawn on a chessboard, to be moved about at the will of a director. Unwittingly, perhaps, it implies a type of human being as mythical as the much discredited economic man of the classicists. How often, even before 1929, must various of our governmental bodies have wished that human nature were as simple as this!

The measurement and analysis of velocity of circulation present no mean task. The rate at which hand-to-hand money and currency turn over merits much further study. Fortunately, data are available in considerable amount on the far more important matter of the rate at which bank deposits are drawn against. Professor Kemmerer's index of business confidence represents an interesting attempt to lift the veil and study an important factor which underlies changes in the velocity of our deposit currency. Of course, the attempt is merely a pioneer undertaking. As he frankly points out, it affords no clue to conditions in 1933, when business failures were "plugged"—as, in fact, they had already been for some time—and when, we may add, personal hoarding for a while displaced business distrust as a primary factor in our economic life. Other data would therefore seem desirable to supplement the analysis, though what they are, I am not prepared to state. Much technical study is required.

Professor Kemmerer feels that "the plans of the Administration for controlled inflation all seem to contemplate the effecting of the control through the regulation of the volume of money and of bank deposits." It is true that the Thomas Inflation Amendment in its first three provisions does. However, the Amendment itself is merely a patchwork quilt which confers four different powers, proposed by as many different groups in the community, but leaves their use discretionary with the President, instead of

mandatory upon him. It is also true that Federal Reserve open-market policy, both in 1932 and again this year, apparently contemplates the procedure to which Professor Kemmerer refers. I may add that, to my mind, the policy of building up excess reserves of member banks on the books of the Federal Reserve banks affords an excellent example of the inadequacy of purely financial measures to force price recovery in the face of a business situation that is not largely favorable. I must confess that I can see no success in the policy pursued, but merely a dissipation of resources and an impediment rather than an aid to recovery.

The gold purchase policy, I feel, can hardly be classed with the other measures and be expected to operate by regulating currency volume. I can see no great mechanical means thereby to price adjustment, but rather reliance upon psychologic factors. And I do feel that it involves a serious exaggeration of the importance of gold, as well as, at best, a long-run type of approach to a short-run problem. To date, the silver purchase policy appears cast in much the same mold.

Professor Kemmerer implies, I take it, although he does not explicitly so state, that a price level 40 per cent above the present one can no more easily be maintained than it can be achieved. The magnitude and difficulty of the task are well illustrated when the post-War price level now so highly praised in certain quarters is contrasted with previous historical price levels. And, it must be added, a substitute must be devised to perform the adjustive functions of price levels, just as of individual prices. But let us assume for a moment that prices can be held at this or any given level and that we rest content with economic recovery, instead of asking continuous reform of the entire economic and social structure. I venture the belief that the average man will find himself the victim of averages. He will be a myth; the actual man of flesh and blood will be sadly disappointed when his price interests in actual commodities do not coincide, as they cannot, with the general average.

In short, with an inadequately developed technique, sublime faith in control is of no avail. Success in control rests, not upon the good intentions, but upon the skill and knowledge, of the controller. And we must not look upon money as a cure for all economic ills. Much better understanding of its technical operations, and hence of the limitations of its field of service, is required. In pointing out some of the difficulties, not to say pitfalls, in the path of controlled inflation, Professor Kemmerer has rendered a distinct service.

LEONARD L. WATKINS.—So many potential arguments are raised by Professors Warren and Pearson in their provocative book, *Prices*, and by Professor Warren's paper that any brief discussion must necessarily be sketchy. Nevertheless, the thesis presented is definite and unequivocal. The decline of prices during the depression has been caused by a shortage in the world supply of gold relative to the demand therefor. The most effective escape from the depression is to be found in reversing the process—that is, in restoring the pre-depression price level (apparently the Bureau of Labor wholesale index)—by raising the price of gold enough to overcome the

shortage. There are several broad questions raised by this thesis. First, has the decline of the price level been primarily due to a world shortage of gold? Second, should the restoration of the pre-depression price level be given primary emphasis in recovery efforts? Third, how effective is the gold policy likely to be in restoring this level?

The first two questions have received much discussion and may be passed over briefly. The world-gold-shortage argument popularized by Professor Cassel and amplified and modified by Professor Warren has the great attractiveness of furnishing a simple formula for price level variations past and present. Time does not permit an examination of Professor Warren's statistical technique or an enumeration of the historical exceptions to his formula. In my opinion, however, the significance of this explanation of the decline since 1929 has been exaggerated and it is deficient in the following respects among others:

1. It is based on pre-War rates of growth of gold stocks in relation to the production of commodities and takes insufficient account of post-War changes in industrial and monetary technique. It fails to take sufficient account of the economies introduced in the use of gold through central banking and other devices since the War.

2. In so far as monetary causes were responsible, overexpansion of credit and credit abuses were more significant than the alleged gold shortage in precipitating the collapse. Professor Kemmerer has shown the importance of velocity as a factor in the price decline.

3. Maldistribution of gold was more significant in causing stringency and breakdown in certain sectors than world shortage, but this maldistribution was due primarily to war debts, reckless private lending, and tariffs, together with the tardiness of some central banks in applying the brakes to credit expansion. Doubtless the terms under which the gold standard was restored in several countries after the War played a part also.

The desirability of rising prices at this juncture is accepted provided the rise is accompanied by increasing production and employment and substantive improvement in industry. It is the proposal to restore the 1926 price level in a relatively short period of time by direct monetary action which has given false color to recovery efforts and promoted fears that inflation is just around the corner. High prices which are not grounded on production, employment, and purchasing power cannot hold unless they are continuously pumped up by false expectations. The 1926 price level, assuming that it could be restored immediately and directly by monetary manipulation, is not the panacea. It is the elimination of price maladjustments and expanding production and employment, which naturally give rise to an advancing price level, which are desired, and it should not be forgotten that it is this volume of production and employment even more than rising prices (except in the case of farmers) which will determine debtors' capacity to pay and entrepreneurs' ability to make profits. Restoration of confidence in the future of the dollar and governmental activities directed towards increasing the volume of purchasing power and employment through public works and banking restoration should do most to promote the growth of recovery—

the seeds of which we hope are already germinating. In my view, it would be preferable to forget the 1926 price level for a while, cease to woo it through monetary policy, and proceed on the assumption that the price level will rise in the natural course of trade recovery.

Professor Warren's theory of the relationship between gold and the price level conforms closely to the pattern of the Laughlin theory. The price level is determined by the demand for and supply of goods in ratio to the demand for and supply of gold. In each case credit is reduced to a subordinate rôle. Professor Laughlin, however, has been termed an anti-quantity theorist because he minimized the gold side and emphasized the goods side in explaining price level variations. Professor Warren, on the other hand, emphasizes the stability in the rate of growth of production and the variability in the monetary demand for and supply of gold. It is unnecessary to dwell on other differences in emphasis. Both views clash with those theories which emphasize money, credit, and velocity, or money incomes and the unspent margin as the dominant factors on the money side of the equation of exchange. The gold theory and the credit theory can be reconciled so far as the money side is concerned only by proof that money and credit times velocity change proportionately with gold supply.

In order to examine the gold theory further let us turn to the gold-buying program. In his book, *Prices*, Professor Warren asks what would happen if the price of gold were raised 50 per cent (p. 174). Some of his answers are as follows: "Prices of cotton and wheat at export points would rise a little more than 50 per cent. . . . Even with no improved prospects for business, prices of industrial stocks would increase about 50 per cent. . . . The value of lumber and other building materials in a house would at once rise by 50 per cent." It is only fair to note that he observes that other prices which have not fallen much during the depression would rise by smaller margins. Nevertheless, there is basis here for some of the criticism, questioned in some quarters as unfair, which has ascribed to Professor Warren belief in the immediate and roughly proportionate response of the price level of all commodities to varying gold prices.

Few economists would deny that an increase in the monetary gold supply brought about either through an increase in the number of ounces or by devaluation will exert some lifting influence on prices. But the evidence seems to show that the connection is long-run and uncertain, not immediate and proportionate. The connection, moreover, depends in some measure on whether the advances in gold prices are made under convertible or inconvertible conditions. Let us examine this connection further. There are apparently three channels through which higher gold prices may exert a lifting influence on the general price level.

There is first the influence acting through the quantity of money. In the early days of debasement, with credit relatively undeveloped and seigniorage quickly expended by governments, prices were driven up with reasonable promptitude but with the usual lags of certain price groups. Since those days, with the development of paper money and credit, the relationship has become less intimate. Since the War, with the extension of central banking

and the minimizing of reserve ratios as credit guides, the relationship has been less direct than before the War. Gold reserves operate through the superstructure of money and credit; even during the years of prosperity we possessed large excess gold stocks. Gold reserves at most set certain elastic upper limits—limits which have been approached only during the crisis of 1920 and the panic of 1933. The expansion of these limits at the present time is not a necessary conditioning factor for monetary expansion. Large gold reserves can affect the price level only in the degree that rising prices for gold are accompanied by comparable increases in spending by the government and by comparable increases of credit by the Reserve banks and commercial banks. The gold policy does not get around the difficulty of promoting credit expansion and the restoration of normal velocity; the potential increase in money and credit cannot affect prices unless it reaches the channels of trade and incomes.

The second line of causation works through the balance of payments and it presents a number of difficult and uncertain issues. If we wish to depress the dollar relative to foreign currencies we can do so by bidding more for foreign currencies and allowing foreign balances to accumulate, by bidding more for foreign gold, and by the threat of depreciation, provided foreign nations do not take defensive counter action. If foreign nations are passive, undervaluation of the dollar acts as a stimulus on our exports and promotes a rise in export prices. The spread of the price rise from these international commodities to other price groups will likely be slow and uncertain. There are too many variables and uncertainties in this situation to permit of any reasonable prediction but a few observations may be offered:

1. As a competitive device by which one country attempts to secure more exports at the expense of other nations, it promises evil except in so far as it works to force an international agreement. Fluctuating exchanges and competitive action decrease the total volume of international trade.

2. From the price-raising point of view it is significant that prices did not rise materially in England as a result of the sharp fall in the pound and it is difficult to escape the conclusion that exchange depreciation in England and elsewhere promoted the price decline in gold standard countries. The fall in gold commodity prices since 1931 has not been an independent variable as Professor Warren implies but has been a function of exchange depreciation in the non-gold standard countries.

3. It is difficult to see how exchange depreciation in any event can be as beneficial to the United States as to countries in which foreign trade is a more dominant element and in which exchange depreciation has been largely due to pressure through the balance of payments.

4. The gains so far attributable to our depreciated exchanges—and they should have manifested themselves already—are, it appears, considerably less than were promised by Professor Warren in earlier writings.

The third factor in the equation is velocity. It has been pointed out many times that given the return of normal velocity the existing supply of money and credit is sufficient to support a much higher price level. It is an open

question as to how this factor will respond to monetary manipulation. The possibilities range all the way from complete loss of confidence and flight from the currency to restoration of confidence in the future of the dollar by adequate reassurances. Either situation will speed up velocity, but no one wishes the former and many of us desire the latter. Apparently the increase in velocity which is most needed is the speeding up of investment in building and the heavy industries and confidence in the dollar is an essential condition here.

Finally, it is pertinent to ask what has been the effect of this combination of forces on the general level of prices so far. It is inevitable that diverse interpretations should occur at this point since Professor Warren and other proponents of the gold policy have pointed to the degree of rise of agricultural and other basic international commodities since the low levels of last February. But whatever may be said for the policy on the score of political and economic expediency, the case is not a good one from the point of view of Professor Warren's theory. The following observations are offered:

1. Even if there had been no change in the gold situation, there was reason for expecting price advances from the lows of last February; the rise had proceeded some distance before the gold standard was abandoned and before advances in gold prices were inaugurated.

2. Many other factors have entered into such price rises as have occurred and no one can say what portion of this rise is to be ascribed to the gold policy *per se*. The threat of inflation has, for example, been active during much of the period.

3. To select fifteen or thirty basic commodities with a world market—commodities most subject to speculative influences and depreciated exchanges, including some commodities even in the import category—is scarcely a fair proof of the validity of the theory. The proof is no more convincing when this comparison is extended to a number of countries.

4. The Bureau of Labor Index of wholesale prices, itself biased by the inclusion of international commodities, has risen only 17-20 per cent since the old parity of the dollar was abandoned and relatively little of that increase has occurred since October 22 when the policy of raising gold prices was inaugurated.

5. Since the gold price has been raised in the neighborhood of 65 per cent it appears that we might expect a comparable rise of average prices or at least a continued movement towards that average without further action by the government according to the theory of Professor Warren.

It is certainly not my intention or wish in any sense to misrepresent the gold policy or the theory back of it or at this point to argue the question of political expediency. It is only fair to recognize that the proponents of the monetary remedy at the present juncture—and this may express Professor Warren's real views—have regarded monetary action as a means of priming the economic pump. But priming the pump can only be efficacious if supported by a strong subterranean flow of trade and employment and it is doubtful how far that supporting stream can be established by the mere

act of priming. In any case, if the gold theory is correct, the priming should now have occurred and it should not be necessary to repeat the process continually and invoke other cures.

Time does not permit a discussion of the issues which are presented in connection with the problem of stabilization and final revaluation, assuming that to be the goal in view. If revaluation is primarily an internal problem as Professor Warren has argued (*Prices*, p. 898), and if general prices respond directly to gold prices, then there should be no difficulty in the way of immediate revaluation at the desired point. Unfortunately the price rise which will accrue from definite revaluation is not predictable (for reasons which have already been pointed out in connection with the gold-buying policy) and international considerations are very important. Nevertheless, it has been and is still my hope that the government will seek to end monetary uncertainty and establish stabilization of the exchanges from our end at an early date and that this may open the door again to international discussions which will lead to the formulation of terms by which the gold standard may be restored. There is no objection to the inauguration of certain reasonable reforms of the old gold standard which will economize gold at that time or, for that matter, to the inclusion of silver in a more prominent position provided the terms are the subject of international agreement. In my opinion there is need for renewed emphasis on some of the principles of internationalism which have recently been pushed into the background.

WILLIAM O. WEYFORTH.—The provisions of the Banking Act of 1933 cover a wide range, and the paper of Professor Willis, giving an appraisal of the new legislation, is correspondingly extensive in the scope of its subject matter. He has sketched in broad strokes his conception of the defects in the original Reserve Act, and of the subsequent developments in banking legislation and practice that further contributed to the lack of soundness in our banking structure, and has then analyzed the principal features of the new Act.

For the purposes of my discussion, it will be convenient to make a somewhat different classification of the provisions of the Act from that employed by Professor Willis. These provisions may be grouped under four main headings: (1) those dealing with the banking practices of member banks, such as those regulating the payment of interest on deposits, the further regulation of loans and investments, and the prohibition of the underwriting of security issues; (2) provisions dealing with the structure of the banking system, such as those relating to branch and group banking, those requiring the divorce of investment affiliates, and other provisions designed to effect a separation of commercial and investment banking; (3) the deposit guaranty section; and (4) the provisions conferring increased powers upon the Federal Reserve banks and the Federal Reserve Board in the control of credit. In view of the limited time at my disposal, it is primarily to the latter provisions that I should like to devote my attention.

The Banking Act of 1933 undertakes important modifications in the type of credit control to be exercised by the Reserve banks and the Federal Reserve Board. Heretofore the credit policy of the system had been carried

out through its rediscount rates and its open-market operations, and in 1921 the Board had expressly denied that there was anything in the Federal Reserve Act which gave either the Board or a Reserve bank any control over the loan policy of any member bank, except perhaps to the extent that a member bank might be influenced by advice or exhortation. In 1929, however, the Board apparently altered its views, and, in its attempt to check speculative activity on the stock exchange, urged that the Reserve banks should pursue a policy of "direct pressure" against the member banks; that is, in deciding whether or not to grant accommodation to a member, the Reserve institution was to take into consideration the policy of the member bank as to speculative security loans on the stock exchange. It was doubtless the objections raised by the New York Reserve Bank as to the feasibility and legality of this procedure and the ensuing dispute with the Board that led to some of the provisions of the Act of 1933, in which full authority for the employment of a system of "direct pressure" is conferred.

Section 8 of the Act makes it the duty of a Reserve bank to keep itself informed concerning the loan policy of its member banks; and in determining whether or not to grant accommodation to any member bank, the Reserve bank is to take into consideration whether the former is making undue use of bank credit for the speculative carrying of or trading in securities, real estate, or commodities, or, indeed, for any other purpose inconsistent with the maintenance of sound credit conditions. There are other provisions of the Act, mentioned by Professor Willis, which further strengthen the control which Federal Reserve officials may exercise over the loan policy of member banks.

The primary purpose of all of these provisions seems to be the prevention of the undue diversion of bank funds into speculative channels. But, as remarked by Professor Willis, there is no provision that is more difficult to enforce. When, he asks, is a bank lending "too freely" to the stock market? The Act itself sets up no standards to determine this, and the matter is left to the judgment of the Reserve officials. The assignment given to them is indeed a difficult one. Will they be able to develop certain general rules to guide them or will they be compelled to treat the application of each member bank for accommodation as an individual case? And if the latter is attempted and one bank is granted accommodation and another denied it on the very indefinite ground that the loan policy of the latter is detrimental to the maintenance of sound credit conditions, may there not arise charges of unjust discrimination that will injure the prestige of the entire system?

The provisions of the Banking Act of 1933 in regard to control over the loan policy of member banks mark a new departure in another respect. The powers and responsibilities of the Federal Reserve Board in the formulation of the credit policies of the system are decidedly increased, since that Board is given the right, irrespective of the approval or wishes of a Federal Reserve bank, to deny to a member bank the privilege of accommodation at its Reserve institution if the Board is of the opinion that the member bank is making improper use of its funds. So far, therefore, as the credit policy of the system is to be carried out by methods of "direct pressure," the Board

is given plenary powers. This is in marked contrast to the position of the Board with respect to the two traditional instruments of credit policy—namely, the rediscount rate and open-market operations—where the powers of the Board seem to be only negative and changes in policy cannot be put into effect without the consent of the regional banks. In other words, so far as the policy of “direct pressure” is concerned, the Act represents a decided advance in the direction of centralized power, whereas with respect to the discount rate and open-market operations, greater consideration is shown for the autonomy of the regional banks, and there prevails a system of checks and balances and divided authority between the Board and the banks.

It is my belief that important changes in credit policy must be based upon considerations that are national rather than regional in scope and that in the interests of an effective policy greater centralization of authority is desirable. The Banking Act of 1933, however, seems to embody no clearly defined or logical conception of the place of the Federal Reserve Board in the system. The Board is given very great powers and responsibilities over the loan policies of individual member banks. The proper exercise of these powers, however, will involve an intimate knowledge and independent judgment concerning the activities of thousands of separate institutions, and a central board would not seem to be well adapted for such duties. On the other hand, the Act makes no attempt to clarify or enlarge the circumscribed powers of the Board over discount rates and open-market operations, although it is in just these respects that, from an administrative point of view, the Board would be in the best position to put into effect a national credit policy. If we wish to make the Board ultimately responsible for the credit policy of the system, ought we not to grant to that body full powers commensurate with its responsibilities?

I am quite in agreement with Professor Willis as to the low-water mark which the Board has reached as to prestige and ability at the present time and also with his strictures as to the partisan character of its membership. In view of these considerations it may be questioned whether further enlargement of the Board's powers is desirable. But it must be borne in mind that, although the present powers of the Board may be insufficient to enable it to carry out a credit policy of its own with respect to discount rates and open-market operations, nevertheless, it does already possess ample powers to enable it to obstruct a vigorous policy which certain regional banks might desire to put into effect. A weak Board, unduly influenced by political considerations, is, therefore, a constant menace to the soundness and effectiveness of the system's credit policy. The cure for this situation is not to be found in any piecemeal enlargement of the Board's powers as provided for in the recent Act but in a full recognition of its powers and responsibilities with respect to credit policy. In this way its prestige should be much enhanced and probably a higher type of ability attracted to its membership than has been available at times in the past.

Perhaps some modification of the Board's composition so as to reduce the danger of political domination would be desirable, but doubtless any

decision on this matter must wait until it becomes more apparent what is to be the status of the Federal Reserve system in the altered economic structure that is being reared under the "New Deal."

Before closing I should like to speak in very brief general terms of some of the other provisions of the Act. In the main I believe that those sections dealing with the banking practices and the structure of member banks represent desirable modifications of our banking law. Certainly the experiences of recent years have indicated the necessity for the separation of investment affiliates from commercial banks and for a larger measure of control over chain and group banking. But I believe that Dr. Willis is correct in his appraisal of the Act as transitional, and that the more fundamental changes necessary in our banking system are yet to be effected. Among these I would include: enlargement of the sphere of branch banking beyond the moderate provisions of the Act of 1933; a modification of the system of calculating reserve requirements so as to avoid the weakening of reserves that has accompanied the distinction between demand and time deposits; a strengthening of the capital requirements of member banks and the calculation of these requirements on some more logical basis than the present crude system; and finally the establishment of a unified banking system under federal control, so as to avoid what has been called a "competition in laxity" between the state and national systems.

Perhaps the provisions for deposit insurance with their requirements for membership in the Federal Reserve system will prove an indirect means of achieving the last result. Senator Glass, to whom deposit insurance was in itself thoroughly unpalatable, has said that the only thing that induced him to support the scheme was the thought that it might "bring us approximately to a unified banking system." But deposit insurance may be too high a price to pay even for such a consummation as a unified banking system. The experience of other countries seems to indicate that sound banking is far more a matter of good bankers than governmental regulation. Yet we seem to be embarking upon a policy that offers less encouragement to good bankers and places greater and greater dependence upon more and more regulation.



SESSION ON PROBLEMS OF PUBLIC FINANCE IN THE DEPRESSION

THE PROBLEM OF TAX DELINQUENCY

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Failure to collect the taxes lawfully due is a symptom of weakness at the very heart of government. And the spectacle of homes and farms and forests in substantial volume passing out of the hands of their owners on account of delinquent taxes is evidence of a condition that seriously threatens the security of private property. Tax delinquency in large and increasing amount is therefore a phenomenon of serious significance both to government and to the owners of taxable property.

Delinquency is chiefly a phenomenon of the property tax. Other taxpayers experience their ups and down due to changes in the tax base, but while the amounts due may diminish, government generally succeeds in collecting substantially what is due. It is only the property tax that presents the spectacle of large sums legally due but remaining unpaid for months or years. I am justified, therefore, in proposing to limit the topic to which I invite your attention to delinquency in payment of the property tax. This obviously limits the problem to the tax systems of the state and local governments.

That tax delinquency has at present reached the proportions of a major problem in the finances of many cities, counties, and towns is realized in a general way by all well-informed persons. On the other hand, the task of giving to the picture that quantitative precision which scientific investigation would prefer is fraught with extreme difficulty. Reports of tax delinquency from individual cities, counties, and towns are at hand in abundance. For some of them carefully analyzed figures are available. There are a few summaries of delinquency conditions for groups of selected cities and counties, some of them carefully compiled. There is lacking, however, any authoritative compilation of the figures for the country as a whole or even for a single state. A committee of the National Tax Association, aided by the staff of the United States Forest Taxation Inquiry, prepared in 1932 a general summary of the statistical material on tax delinquency. While admittedly incomplete, this summary provides the best picture of the general delinquency situation that is now available. I shall make no attempt in this essay to present detailed figures but may be understood to be relying chiefly upon this committee report for the factual basis of my discussion.

A special difficulty confronting the student who seeks the facts of tax

delinquency lies in the varying degrees of delay or nonpayment which are embraced in the general term "tax delinquency." This goes all the way from taxes which, a few weeks after the due date, have not been collected to taxes that have remained unpaid for years and will in all probability never be paid. Collection calendars and procedures vary so greatly between the different states and even among the several taxing jurisdictions within a given state that no precise definition of the term "tax delinquency" that would be of general application appears to be possible. As a result, popular discussion of this matter is involved in much confusion. On the one hand, the newspapers frequently present lurid accounts of wholesale delinquency in some county or city or state, reporting a great part of the public revenue not collected and hundreds or thousands of citizens about to lose their homes and farms, whereas a true understanding of the facts would disclose, on the part of the great majority of delinquent taxpayers, merely a disposition to let the local government carry them on credit till a more convenient time of payment. On the other hand, the very prevalence of delayed tax payments may become so much a matter of the commonplace that public opinion fails to realize that some of these unpaid taxes are destined never to be paid, with consequences most serious to the government and to the owners of the property involved.

The various stages of delinquency to which I have called attention are of course a matter of degree, but they are more than that. In fact it is possible to distinguish rather definitely two classes of tax delinquency which in their practical significance represent a real difference in kind. These we may designate "short-term" and "long-term." We may safely adopt the definitions suggested by the National Tax Association Committee, to which I have referred:

Short-term delinquency may be defined as that which exists when a tax remains unpaid at the end of the regular collecting period and becomes subject to a penalty. Usually the penalty is rather light for the first several months, or even for a year or more, and hence taxpayers may deliberately delay payment for a while in order to meet more pressing demands. While, of course, it causes the political units some temporary embarrassment, short-term delinquency does not necessarily result in permanent loss.

Long-term delinquency may be said to exist when taxes are two or more years in default and the taxpayer is in some real danger of losing his property. The period cannot be stated with exactness because of wide variety in the statutes and in the manner in which they are enforced. Viewed from the point of view of the government, long-term delinquency exists when there is an accumulation of unpaid taxes against a property and a prospect of eventually losing the property from the tax roll. Long-term delinquency thus constitutes a serious governmental problem.

In spite of the loose terminology in common use, the paucity of statistics, and the unreliability of many published reports, there is available, I think, enough knowledge to demonstrate that tax delinquency has today reached serious proportions, presenting a menace to the stability of many local governments and an ominous threat to the security of

private property in many localities. Devotion of time and labor to the scrutiny of the causes of tax delinquency and the search for a remedy would appear to be fully warranted.

The economic depression of the past four years has caused a great increase in tax delinquency and has attracted unusual attention to the subject. But tax delinquency is by no means solely a depression phenomenon. Some degree of delinquency has long been a chronic situation in most parts of the United States, while in certain regions it presented a serious problem long before the crisis of 1929.

The consequences of depression, in bringing to a focus and frequently making desperate a chronic condition of tax delinquency, should be fairly obvious. Business failures, collapse of farm incomes, default of tenants on their rent payments, and the general decline of incomes, necessarily place thousands of taxpayers in a position where they simply do not have the money to pay their taxes. The only real remedy for this condition is the restoration of a healthy industrial life. In the meantime it is inevitable that many taxpayers will not pay their taxes, that many local governments will be in financial straits, and that many owners will lose title to their property. Measures should undoubtedly be taken to make this situation as tolerable as possible to all concerned. Special leniency in tax collection and tax foreclosure may need to be employed. Many cities and counties and towns will borrow to meet current needs. But it should be clearly recognized that all such measures—necessary as they may be—are after all only treating the symptom. In a long-continued depression they will only partially succeed in warding off the consequences of deep-seated economic forces, and they do nothing whatever to attack the causes of the disease. It should further be emphasized that had delinquency not been permitted to become a chronic condition in normal times, the depression need not have brought the taxpayers and the governments into such desperate straits. Also let us observe here, what I shall discuss more fully later, that measures of leniency run the great risk of intensifying the causes of delinquency and so laying up more trouble for the future. With no desire to minimize the seriousness of the present crisis or the necessity of temporary measures of relief, I confess that my chief interest is in the search for the basic causes of chronic delinquency and the remedy therefor.

Before proceeding on this quest, we may profitably pause to consider what to me appears to be a question of considerable interest; namely, why is it that tax delinquency appears to be almost exclusively a phenomenon of the property tax? The United States government generally collects promptly its customs tariff, its internal revenue taxes on tobacco and other commodities and activities, and its income tax. The states collect their corporation taxes, their income taxes, and their motor

licenses and gasoline taxes. State and federal governments are successful in the collection of estate and inheritance taxes. Why is it that, in the whole American system of taxation, it is the property tax alone that presents a serious problem of collection? The answer lies, I think, partly in the inherent nature of the property tax, partly in collection procedure and administration. The second part of the answer will develop in connection with our investigation of the basic causes of tax delinquency. The first may merit some brief notice at this point.

Indirect taxes, such as the customs and excise taxes, are regularly counted as part of the cost of business of those who are called upon to pay them, and they are regularly reimbursed in the prices paid for the taxed articles. The special corporation taxes and other business taxes generally bear some relation to business income and find the taxpayer usually in possession of money with which to pay. Turning to the direct taxes, levy of an income tax generally presupposes a net income from which the tax may be paid. Death taxes, in spite of the convenient fiction that they are an excise upon the right of transfer, are in actuality a sharing by government in the transferred estate, and the demand for their payment is presented to an administrator with funds in his possession, the disposition of a part of which in payment of inheritance taxes is the normal thing.

The property tax, though a direct tax levied upon capital value, is intended, not to deprive the taxpayer of a part of his capital funds, but to be paid out of income. But the tax is levied obviously without reference to current income; though the capital value is there, present income may be lacking. And sale of the taxed property to meet the taxes is not in the normal scheme of things—is indeed an indication of economic breakdown. It may thus occur that a property tax, legally levied, finds the taxpayer without money to pay or so short of cash that he feels forced to put other obligations ahead of taxes. So he postpones payment, and delinquency results, as does not ordinarily occur in connection with other forms of taxation.

No one can go far in the search for the causes of property tax delinquency without reaching the conviction that the chief cause, of short-term delinquency at least, is to be found in the methods that are ordinarily employed in collection. It becomes at once evident that collection procedure, as it has developed in most of our states, appears in many ways to invite laxity in the payment of the property tax. Generally an extended period is allowed between the date of assessment and the time when taxes are due—frequently as long as a year or even longer. On top of this a further period, frequently extending over several months, elapses before any penalty for delayed payment is imposed. In this long interval before effective measures are invoked to enforce pay-

ment, people move away, property changes hands, values shrink or disappear.

The time of payment is frequently set with no regard either to the convenience of the taxpayer or the needs of the government. Many jurisdictions display their lack of businesslike method by failure to send bills to the taxpayers, thus making it difficult for them to ascertain their tax liability and to pay promptly even though they may desire to do so. Penalties for delay in paying taxes are generally applied only after a long interval. During the first few months of delinquency they are often too trifling to have much effect. Later they become more severe and are increased by accumulated interest charges and other costs, so that the total becomes often a crushing burden on the property.

Weak as collecting procedure generally is, most states experience difficulty in getting the law enforced with diligence. In most local jurisdictions the collection of taxes is performed by a person who holds his office by popular election. No one likes to pay taxes; the collector knows that his is an unpopular function. He is constantly importuned to grant special favors in the form of extension of time for paying taxes, remission of penalties, or withholding of the taxpayer's name from the advertised list. Having his mind on the coming election, the collector is under constant temptation to proceed leniently in collection and has obvious difficulty in resisting pleas for special favors. Influences of the same sort operate upon the other political officers concerned with tax collection. Sheriffs and county and city attorneys often fail to institute foreclosure proceedings on time or do not prosecute them with vigor.

If it is the weaknesses of local government that produce laxity in the administration of the laws relating to tax collection, the blame is not all here. Even the lawmakers of the state are unable to resist the forces that tend to weaken tax collection procedure. In numerous states the legislatures have recently passed laws extending the time of payment, reducing or waiving penalties already accrued for delinquency, or postponing the date of sale.

Altogether the taxpayer is given an impression of laxity and unbusinesslike method on the part of government which invites corresponding laxity on his own part. He sees a legal procedure which on its face is poorly devised to secure prompt and certain collection of taxes. He finds that the officials are prone to disregard the law. Still worse, he is led to hope that the legislature, which has heretofore relaxed the provisions of the tax law, may do so again. Such weakening of the law is most demoralizing. It is grossly unfair to those taxpayers who have paid according to the letter of the law or who, having delayed, have paid the full penalty and who now see favors granted to those taxpayers who

have been the most dilatory. Evidence shows that the taxpayers have frequently taken such legislation as a direct invitation to go slow in paying future taxes in the hope of further legislative relief.

Here is, I think, evidence enough to show that it is faulty collection procedure and administration and a false attitude on the part of government itself that is chiefly responsible for at least short-term delinquency. There is every reason to believe that if the legal procedure were carefully devised with the purpose of requiring prompt payment with adequate penalties for delay, if collection were in the hands of competent officials free from local political influence, and if the legislature, instead of betraying the efficient and energetic collector by progressively weakening the law, should maintain the law and make amendments only for the purpose of strengthening it, most counties and cities and towns could collect practically all their taxes on time, the overwhelming majority of taxpayers would be free of liability for back taxes, and ordinary short-term delinquency would in normal times practically cease to exist. Numerous cities and counties could be cited which, even without all these favorable conditions, are today collecting their taxes with a high degree of success. They succeed by means of sound collection procedure administered by intelligent, energetic, and courageous officials.

Remedying the defects of collection procedure and administration would do more than solve the problem of short-term delinquency. It would go a long way toward removing the causes of long-term delinquency also. All delinquency originates, of course, in short-term delinquency. Easy going collection methods invite the taxpayer to postpone payments which he might have made. As he falls farther behind, he finds it constantly harder to catch up. The officials are generally even more derelict in collecting back taxes than in enforcing current payments. Sometimes the law is indefinite as to foreclosure procedure or as to the disposition of property acquired through foreclosure, thus encouraging the officials to avoid embarrassment by postponing positive action. So the less careful taxpayers are gradually led into a position of long-term delinquency from which they may not be able to extricate themselves. Long-term delinquency arising thus might have been largely avoided by effective collection from the start.

There would still remain, however, a certain amount of long-term delinquency, due to causes quite apart from collection. The chief of these is faulty assessment of the property tax. Meeting one's tax obligation when the taxable value is there and the tax burden is justly distributed by means of a true assessment is one thing. It is something different when the taxpayer finds his property assessed at more than its value or (what amounts to the same thing) when, in connection with prevail-

ing undervaluation, his property is assessed above the average ratio to true value. The owner who might meet a just tax may be brought to ruin by an excessive tax resulting from unfair assessment.

Perhaps less definitely unjust, but no less disastrous economically, is the situation in which a whole class of property is assessed above its true value. This occurs frequently when assessment fails to take account of a drastic decline in values, whether resulting from general causes, as in time of economic depression, or from causes peculiar to the locality. A striking example of the latter case has been visible for a good many recent years in the cut-over areas of the Lake states, and is well reported by the National Tax Association Committee on Tax Delinquency as follows:

After the timber was cut from this land it was either held by the lumber companies or sold to land companies for subsequent agricultural development. The owners continued to pay taxes on it in the confident belief that it would later be sold to farmers at a profit. Since the World War it has become recognized that most of this land is submarginal for agriculture under prevailing conditions, is not needed for agriculture, and has practically no marketability. Yet it continues to be assessed as potential agricultural land and far in excess of its actual market value.

The overassessment appears to persist because of several reasons—the fact that much of the cut-over land is held by absentee owners who find it inconvenient and costly to appear in protest, the fact that all cut-over land is overassessed and hence that there is no willful discrimination as between individuals, and the fact that the governing bodies are reluctant to reduce the assessment on cut-over land because it occupies such a large place in the tax base. They recognize that even a moderate reduction in the assessment of cut-over land would involve an appreciable increase in tax rate and hence an increased burden on the few scattered and not too prosperous farms. They are frankly trying to protect and preserve such settlement as exists.¹

Overassessment due to similar cause is often witnessed in the wake of an unsuccessful real estate development or after the collapse of a general land boom. Thus thousands of lots purchased at fabulous prices in Florida subdivisions have since lost most of their value. The taxes, when considered in the light of actual present values, are so high that few owners see any hope of ever coming out even. Wholesale delinquency has thus resulted over large areas.

Of course assessment above true value is illegal. So is assessment below true value, with the resulting injustice on account of inequality in the assessment ratio. But that such illegal assessment is the normal situation in many taxing districts throughout the United States is so well known as to be generally taken as a matter of course. It is time we recognized that incorrect assessment, contrary to law, is one of the basic causes of tax delinquency—delinquency moreover of a peculiarly indefensible sort, since it frequently leads to confiscation of the property of the citizens through sale or foreclosure of tax liens.

The sheer burden of taxation, resulting from the heavy and increas-

¹ As reported by the National Tax Association Committee on Tax Delinquency, on the basis of studies made by the United States Forest Taxation Inquiry.

ing cost of state and local government, and quite apart from inequities in assessment, is without doubt an important cause of long-term delinquency. As is well known, there has been a steady growth in the burden of American taxation for a generation and more. The total of all taxes in the United States absorbed 7.2 per cent of the total income of the people in 1890; in 1980 it took 14.4 per cent, exactly twice as large a share of the national income. Today of course this ratio is much higher, perhaps as much as 25 or 30 per cent. Figures prepared by the United States Bureau of Agricultural Economics and presented in the report of the National Tax Association Committee, to which reference has been made, show that, whereas the index of the average value per acre of ten leading crops had declined from 100 in 1913 to 81 in 1980, the index of farm real estate taxes per acre had increased from 100 in 1913 to various heights from 240 to 262 according to the geographical region. In other fields of industry the tax burden has been similarly growing. While statistical data are not available to show the correlation, it is obvious that, with such steady increase in tax burdens, the number of taxpayers who finally give up the struggle to keep out of delinquency must be increased. This situation is frequently concentrated in particular localities, where the local governments have undertaken public services on a lavish scale beyond the ability of the local property to support. Large areas of land have thus occasionally been driven into delinquency, frequently in connection with a collapse of speculative values. .

An important cause of the existence at any time of so great a volume of long-term delinquency is the ineffectiveness of the existing means of disposing of the tax levying government's claim against property that has fallen into the delinquent class. In general the theory of the law, as it everywhere exists, is clear enough, giving to the state or county or town the right to sell the property, or a part of it or a lien upon it, or itself to take the property in satisfaction of the claim for unpaid taxes. On the other hand, the practical technicalities, legal and economic, approach the infinite. There is not opportunity here to discuss this troublesome phase of the delinquency problem. Suffice it to point out that, under existing law and practice, the greatest difficulties stand in the way of a final settlement of tax claims in the manner laid down. The courts, quite properly no doubt, are inclined to protect to the limit the taxpayer against loss of his property. The procedure is complicated, time-consuming, and costly. Tax liens and titles obtained through tax sales are very apt to be open to question. In many localities where tax delinquency is prevalent the situation is chaotic. Large areas are held by their owners under a cloud of unpaid taxes. Tax liens are held, either by private speculators or by the county or state. Large areas

are actually forfeited to the government, which is unable to dispose of them with a clear title to new owners.

In the meantime the public revenues suffer. Some revenue may be received from the sale of tax liens, but, unless the lands can be put into the hands of those who will use them productively, this is but a temporary help. Lands that have definitely gone delinquent pay no taxes. New owners are hard to find, because of the character of the titles, or because the excessive tax burden which originally forced the lands into delinquency may still operate as a warning to purchasers who would look forward to taking title, as contrasted with the mere speculators in tax liens. The greater the volume of delinquency, the heavier is the burden required to meet governmental expenses, on those lands that are still paying taxes, and the heavier is the pressure to drive more lands into delinquency. A community in this state is on the path to breakdown of its governmental finances.

From the side of the property owner, the prospect is no less distressing. Heavy costs of government, beyond what the community can afford, inequitable and illegal assessment, slipshod methods of collecting taxes—these are the forces which, singly or in combination, are leading, under guise of law, to the confiscation of private property on a large scale through tax delinquency. There is no valid defense available to any government to justify such destruction of property rights.

In suggesting remedies for the present unhappy state of tax delinquency, I am necessarily limited to only the barest outline. It may be taken for granted, I presume, that so far as the evils of tax delinquency are the result of wasteful and extravagant governmental expenditures or expenditures beyond the means of the community, the remedy is obvious. We have here simply another argument to add to the case in favor of efficient and economical government. So far as tax delinquency is due to imperfect assessment of the property tax, the remedy again is obvious, and we are adding to the argument, already supported by other weighty considerations, in favor of sound assessment.

More particularly, if the evils of tax delinquency are to be relieved, there must be reform of the prevailing methods of tax collection. May I merely indicate some of the essentials of what I should consider sound collection procedure.

The various steps in the process of levy and collection, from the assessment to the final sale of delinquent property, should be clear, definite, regular, and as undeviating and as swift as possible. It would seem that ordinarily the public budget should be adopted and the tax rate fixed within one month of the completion of the assessment. Bills should be sent to every taxpayer just as soon as they can be prepared; this should seldom require as much as a month. A date should be set, not

more than a month after the time when the last tax bill would ordinarily have been sent out, at which the tax would be due (or the first installment, when payment in installments is permitted). Taxes not paid on that date should be immediately delinquent, and a moderate penalty added. In addition interest at a fairly heavy rate should be charged from the date when taxes were due. Matters should be allowed to ride thus for a reasonable time, not more than a year. Within the year steps should be commenced leading to foreclosure, which should be carried through just as speedily as regard for the rights of all parties interested would permit. The procedure should be the same as for an ordinary mortgage foreclosure sale, and the property itself (or in some cases a part of it), not a tax certificate or lien, should be sold. Thereafter a period, ordinarily not exceeding six months, should be allowed, within which the owner or any party at interest might redeem the property, by paying all taxes and other charges that had accumulated, or might commence suit to set aside the sale on account of error. In case no such action were taken, the purchaser should be given absolute title. If at the foreclosure sale no purchaser bids an amount as great as the total of taxes, penalties, interest, and other charges standing against the property, the government (state, county, or town, according to the circumstances) should acquire the property through the same procedure as in case of purchase by a private person. In all this procedure there should ordinarily be no deviation, and especially no extensions.

Although the undeviating nature of this suggested procedure is one of its chief virtues, there is room at one point for some relaxation in the interest of the taxpayer who, though apparently solvent, finds difficulty in meeting his taxes on account of lack of present cash. To such a one there might well be given the option of postponing payment for a short period, not exceeding five years. This option should be conditioned on the taxpayer paying at the regular time some definite part of his tax, such as 10 or 20 per cent, and also paying in advance interest on the deferred balance at a rate slightly above the market rate of interest. For this idea I am indebted to a suggestion offered by Professor Simpson.² The plan would deal fairly with those who intend in good faith to pay their taxes, while from the viewpoint of public finance it would be vastly superior to the accumulation of delinquent taxes, which is today the ordinary alternative.

I recognize that this brief sketch leaves much that might well call for explanation and defense. I know that there are those who would prefer a different procedure—at least at certain stages. I admit freely that this procedure may appear to some unduly swift and summary and

² Herbert D. Simpson, "Tax Delinquency, Economic Aspects," *Illinois Law Review*, June, 1933.

lacking in that leniency and elasticity which due regard for the interests of unfortunate taxpayers might require. I am convinced, however, that uncertainty, delay, and leniency do not in the long run serve the interest of the taxpayer. All our experience is evidence as to this. I believe that the cause of good government and the welfare of the whole group of taxpayers may best be served by providing a swift, sure, and dependable procedure in place of the maze of tradition, historic safeguards, legal technicalities, and administrative weaknesses that now confuse and delay tax collections.

As to differences of opinion which may exist, my hope is that the positive statement of the program which I am proposing may serve to bring out opposing plans, to arouse discussion, and so to lead finally to a sound consensus of opinion as to the best way to deal with this most troublesome problem of tax delinquency.

THE PROBLEM OF EXPANDING GOVERNMENTAL ACTIVITIES

By HERBERT D. SIMPSON
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In assuming to discuss such a stupendous subject as the whole problem of expanding governmental activities, I shall attempt, within the scope of this paper, to do only three things. I should like, in the first place, to propose a background or perspective in which to set the problem; in the second place, to enumerate some of the specific problems which the present movement is precipitating; and in the third place, to concentrate my remaining discussion upon the one problem which appears to be the most significant from the standpoint of public finance and taxation.

PERSPECTIVE

The first prerequisite, it seems to me, for any sound interpretation of the changing sphere of government activity is not facts, data, or statistics, but perspective. I say this partly because it appears to be the one thing lacking in most of the discussion of the subject. In all the discussion of the changing sphere of governmental activity by business men, statesmen, and economists for decades past, the traditional picture has been that of increasing governmental activity against the background of a supposed preceding period of *laissez faire*, in which governmental activity was at a minimum. In most of our economic texts the student is told of a period in which governmental activity was limited to national defense, the protection of life and property and a few essential functions, and in which individual freedom characterized the economic system.

In contrast with this period of supposed individual freedom, he is told that we have for some time been in a period of increasing governmental control and activity. Economists have often been put on the defensive in efforts to explain or justify this expansion of the governmental sphere. And yet with all the theory and philosophy that have been brought to bear upon recent trends and developments, economists have never purported to disturb the popular picture of the preceding century as a golden age of individual freedom, when governmental control over economic affairs was actually at a minimum; and one of the strangest bodies of economic literature is that which has to do with "the passing of *laissez faire*." So far as this refers merely to the passing of a theory, no one will question it; but so far as it refers to the passing of a system, supposed to have actually existed, it has led to a great deal of confusion in the popular mind, if not in the minds of economic writers themselves.

For judged by any sound historical criteria, I know of no evidence that any such period ever existed either in Europe or this country—except in the realm of theory. And while there is no statistical or other technique for measuring quantitatively the aggregate amount of governmental interference, on the one hand, or of individual freedom, on the other, nevertheless, measured by any rational norm, it may be doubted whether—down to the advent of the present national administration—the total sphere of governmental control and activity had expanded at all in the past hundred years. The nature and objects of governmental activity had changed greatly; the amount of governmental interference with reference to particular fields and particular groups had likewise changed greatly; but if we are speaking with reference to the whole population and the whole field of economic life, it is extremely doubtful whether the aggregate amount of governmental activity had increased in particle.

In the United States of a hundred years ago—the acme of this golden age of liberty and unrestricted individualism—upwards of one-tenth of the entire population of the country was in slavery, a slavery established and maintained by both state and federal governments. In both England and America half of the adult population, namely, women, were restricted by governmental authority to the barest minimum of economic and political rights. In both countries the laboring population was subjected to severe restrictions through rigid laws of apprenticeship and indenture, through laws prohibiting labor organizations, and through severe application of the law of conspiracy to almost any form of agitation or activity on the part of millions of the laboring population, in efforts to improve their situation. The general practice of imprisonment for debt was a further powerful means of keeping the laboring and poorer classes in subjection to the employing and capitalistic classes—and all this through the direct exercise of governmental authority.

I am aware that in bringing slavery, the economic position of women, and certain other fields into our appraisal of the area of governmental authority, I am likely to be ruled “out of bounds,” so to speak, of the usual scope of discussion of this subject. But after all it is only by going out of bounds of the traditional picture that we will get any complete appraisal of the relative areas of governmental interference and individual liberty throughout this period.

And if we pass from these areas of governmental restriction to areas of more direct governmental activity, we find in England a large field of state enterprise in the form of the established church, supported by compulsory taxation of Baptists, Methodists, and Presbyterians, down to the Church Rate Abolition Act of 1868. In economic fields we find the English government, throughout the first part of this period, maintaining elaborate systems of tariffs and embargoes on foreign trade; and

throughout the later part of the period throwing the whole machinery of government, financial, diplomatic, and military, into "paternalistic" support of various fields, particularly of foreign trade. Vast colonization schemes for the purpose of commercial exploitation were subsidized by the British government. Huge trading corporations were formed and endowed with semigovernmental authority to exploit the resources and trade of vast areas in Canada, Africa, and the Orient. The maintenance of these economic enterprises involved the support not only of the diplomatic resources but also of the armed forces of the Empire, and resulted in almost constant warfare either against native governments or rival European governments in Egypt, the Sudan, South Africa, India, China, and other quarters of the globe.

In the United States, this period of a supposed "minimum sphere" of governmental activity was characterized by the wholesale participation of national, state, and local governments in the promotion, financing, and construction of railroads, canals, and other huge economic enterprises—a participation so widespread and extravagant that it resulted in bankrupting many of the states and thousands of municipalities and local governments, and was a major factor in precipitating the crisis of 1887 and the periods of "hard times" that followed. Sixty-eight cities in Illinois alone went bankrupt on this "minimum" of governmental activity.

In addition to these larger areas of governmental activity, there was throughout varying portions of this period a vast amount of miscellaneous and detailed regulation—"Poor Laws" in England, "Blue Laws" in New England, prohibitions and repressions with which every historian and economist is perfectly familiar.

With this rough and somewhat impressionistic sketch of what was actually embraced in the supposed "minimum sphere" of governmental activity, a picture of modern governmental activity does indeed afford some sharp contrasts. We have had a large field of railroad and public utility regulation, a considerable body of banking and general business regulation—although actually not nearly so large or effective as it is commonly represented—some subsidizing policies, an enormous development of public education, and a considerable development of public health and "general welfare" activities.

These are sharp contrasts, but they are contrasts of character and purpose, not of amount. Many of them represent the same fields of activity as formerly, but the type of activity in these fields has changed. Railroads and public utilities are regulated; in the preceding century they were extravagantly subsidized. Now, regulation may be more distasteful than subsidy, but the one does not necessarily represent any larger degree of governmental activity than the other. Indeed, there can scarcely be question that, measured in total, governmental activity on the ~~whole~~

of national, state, and local governments was a larger factor in the railroad industry of fifty to a hundred years ago than it is today.

Even in the field of agriculture, all of our governmental efforts—speaking again of developments down to the advent of the present national administration—have been trifling in comparison with the scope played by the Homestead Act and other public land policies, the railroad and canal building, and the immigration and colonization schemes in the government's agricultural policy of seventy-five years ago.

In the field of industry, regulations in the interest of labor have replaced a body of rigid regulation in the interest of employers. Public education, in some degree, has replaced public "operation" of an elaborate system of state religion in European countries. And it may be doubted whether even the playgrounds, municipal bathing beaches, and other so-called public welfare agencies of today constitute any heavier drain proportionately upon a nation's wealth than did the extensive domains and hunting preserves, the gardens, castles, and palaces formerly maintained for the "welfare" of a top heavy nobility and aristocracy.

The large areas from which government has definitely withdrawn we need scarcely enumerate—slavery, restrictions upon the economic status of women, prohibitions upon collective activities of workingmen, imprisonment for debt, the endowment of large trading companies with quasi-governmental authority, and so forth.

When we compare the broad outlines of the two pictures—that of a century ago and that of today—it is apparent that there is at least serious question whether the total area of governmental activity has really "expanded" at all.

Sometime perhaps the Econometric Society or someone else will work out an "index" of the relative magnitudes of governmental and individual activity. If so, one further problem they will have to confront will be the adjustment of such an index to changes in the total area of human activity. President Nicholas Murray Butler has observed that ignorance is more excusable now than formerly, because there are so many more things to be ignorant of. In the same way, it is possible that government may actually be directing a greater number of activities today and yet the individual still have as large a proportionate sphere of activity as formerly—because there are so many more activities for both of them to engage in. If we qualify our index by recognition of this vast increase in the aggregate area of human activity, there is still further question whether the governmental area would not have bulked as large on any complete map of human activities under the *laissez faire* régime of a century ago as it did in this country a year ago.

Perhaps I should say that in discussing this earlier period under the term *laissez faire*, I have no intention of attaching undue emphasis to

the term itself. I am concerned here with pointing out the fallaciousness of the traditional picture of this past period, which is held almost universally by American business men, which they have derived largely from their economic courses in college and their reading of economic literature, and which has given them a distorted perspective for forming judgments with regard to present developments. I am aware, of course, that the term *laissez faire* is sometimes used by economic writers chiefly to emphasize the increased freedom of a century ago, compared with the mercantilistic and feudal restrictions of a preceding period. This would be an accurate use of the term; but *laissez faire* in this connotation affords no basis for the invidious comparisons that are commonly made between the past century and the present. The term is used also in the sense primarily of the entrepreneurial freedom which did characterize the period; but in that case, the traditional picture of a general condition of individual freedom is entirely erroneous. Or the term may possibly be employed merely to designate the modern régime of private property, freedom of contract, and the general legal framework of modern times. But in that sense obviously there can be no occasion to speak of "the passing of *laissez faire*," as economists have been doing for the past quarter of a century. Therein, it seems to me, economists have assumed an unnecessary onus and have allowed themselves and their viewpoints to be put in a distinctly weaker position, than if they had pointed out that what has been going on is not necessarily any increase in government control or expansion of governmental activity but changes in the character and purpose of both.

HOW THE LAISSEZ FAIRE MYTH AROSE

The truth is that the tradition of a mythical period of individual liberty arose in the same way that much other mythology has arisen. The new manufacturing and merchant classes that arose with the invention of machinery in England and America not only dominated the industrial life of that time but impressed their viewpoint upon the legislation, politics, and economic theory of the period. They secured the repeal of a large body of feudal, medieval, and mercantilistic laws and regulations, leaving themselves almost unrestricted freedom in methods of production, in the determination of wages and conditions of labor, in the prices and character of their products, and in methods of competition. In short, they secured *laissez faire* for themselves—but at the expense of pretty much everybody else. Nevertheless they and their spokesmen in Parliament, Congress, and the courts, in the press, the universities and elsewhere talked and wrote so much about *laissez faire* that they eventually created an imaginary state of *laissez faire*, which in time became embodied in the literature of the period. It was much the same process by which the conventional history of the Roman Republic was written

by representatives of the patrician class, and the downfall of the Republic was represented as the downfall of human liberties. We know now that the "downfall" of the Roman Republic was primarily the downfall of a patrician oligarchy, and that it resulted in an enormous increase in the aggregate of political freedom throughout the Roman world. So the history of the laissez faire period was written from the viewpoint of the dominant classes of that time, and much of this conventionalized history still survives.

CONSTANT REDEFINITION OF GOVERNMENTAL SPHERE

And yet it is clear that what has actually been happening throughout the past century is a constant redefinition of the governmental sphere, not in terms of amount of activity but in terms of the nature and purpose of the changing activities which from time to time make up the content of this governmental sphere. Broad areas of governmental control or activity have been completely abandoned; new areas have been explored, occupied, and in turn abandoned. The frontier, the advancing sector, is always the line of fiercest conflict and therefore the one which commonly attracts most attention. The areas evacuated in the rear receive relatively little notice. In general, those classes which were under the most rigid repression in the earlier period have enjoyed the largest degree of liberation since that time; and those classes which were the chief beneficiaries of governmental policies in the former period have since then been subjected to a considerable degree of control. To the latter the change in point of view naturally seems like an increase in the amount of regulation. The modern business man, if he finds himself regulated instead of subsidized in some form or other, instinctively feels that government should be restricted to more "essential" functions.

In this process of constant definition and redefinition the "curve" of governmental activity has sometimes moved definitely upward, and sometimes as definitely downward. From the beginning of our national history, the scope of governmental authority and activities expanded, with temporary recessions, until it culminated in the general crisis of 1837. From that "peak" the curve receded, down to the Civil War, when the convergence of a number of factors reversed its direction and the curve rose rapidly to another culmination in the general period marked by the crisis of 1878. From that point, the curve declined again till well toward the end of the century, when accumulated grievances and agitation forced a reversal of its trend again; and from that time the curve moved upward, continuing throughout the Roosevelt and Wilson régimes, accelerated by the World War, and culminating with the Eighteenth Amendment, the adoption of restrictive tariff and immigration policies, and with enormous highway, school, and developmental programs on the part of state and municipal governments.

From that point throughout the following decade, the curve of governmental activity "flattened" out perceptibly. This flattening, however, took the form not of repeal of legislation or of formal withdrawal from fields of activity but of a general laxity of law enforcement and an incompetent or corrupt indifference to the performance of official duties, which in some communities has amounted almost to complete paralysis of governmental leadership and influence, if not of the performance of governmental functions themselves. State legislatures and city administrations have largely abdicated the direction of governmental affairs and sometimes the administration of governmental functions to citizens' committees, civic bodies, and business organizations of one kind or another. The whole decade from 1920 to 1930 was a period of conspicuous governmental incompetence, with a consequent increase in lawlessness and crime, the development of vicious types of business organization and methods, and the growth of a deep penumbra of racketeering practices around the ragged fringe of corrupt and incompetent government. We have had such periods before. Sometimes they result in a resentful curtailment of governmental powers and activities; generally they have resulted in violent demands for more rigorous governmental action against the sources of grievance. Needless to say, the latter has been the case in our present situation.

THE PRESENT MOVEMENT

It is this that creates our problem; and if I have devoted a disproportionate space to developing the background rather than discussing specific problems, it is because in this problem I believe the perspective is more important than the detail. When set in this perspective, I infer that our present movement is one of those broad upward swings in the curve of government activity, such as we have had before; that it represents largely a reaction against certain specific antecedent conditions; and that when this particular movement is over, we will find that its net result will consist much more in changes in the nature and objectives of governmental activity than in any change in the amount of such activity.

It may be, of course, that past history, that our background of racial antecedents and national attitudes afford no guide in our present crisis. It may be that we are plunging into socialism or fascism; that we are developing an American Soviet, in which business "soviets" will correspond to the Workingmen's Soviets of Russia; or that we are entering upon some other new-fangled type of dictatorship. It looks, in fact, as if at the moment we were trying to adopt all of them at once. I assume no wisdom to predict what the future may bring forth. But I think we can say that so far as any visible elements in the situation are concerned, most of them are familiar; none of them necessarily

imply any violent expansion of the governmental sphere or any violent departure from its past orbit of evolution.

I realize that those who hold that all our troubles are due to our unhappy progress in mastering the productive forces of nature and to the sad limitation of human wants in the face of such abundance must place a wholly different interpretation upon our present situation. But between that school of economics and any process of thought which the present writer is capable of, there is "a deep gulf fixed," so deep that, as with Lazarus and Dives, discussion is impossible—beyond the limited conversation recorded in that Biblical parable, which I would commend to the holders of those theories.

PRACTICAL PROBLEMS

But whatever the outcome, those of us who are working in the humble fields of taxation will be called upon to face the practical problems which the present movement is precipitating. This movement may be characterized by the following broad features, omitting the purely regulatory activities which do not directly concern the fields of finance and taxation: the employment of national credit, on a huge scale, as an agency for industrial recovery; an enormous development of a policy of subventions from the national government to state and local governments; a policy of vast private subsidies; the direct expenditure of other huge sums by federal and state governments for relief and for providing employment; the development of a vast bureaucratic machinery, with a large degree of discretionary control over federal expenditures.

These developments are precipitating certain gigantic problems of finance and taxation, which I will only enumerate:

1. All the problems of financing the public debt, particularly the huge federal debt, now amounting to \$24,000,000,000, but including also a wide range of difficult problems in connection with an enormous amount of state and municipal indebtedness.

2. All the problems of providing revenue, not only for carrying the accumulated indebtedness but for financing the current necessities of government sufficiently to prevent the crippling of essential services.

3. All the problems of "demobilization"—of disbanding the army that has been mobilized by federal, state, and municipal governments in the course of this "War on Depression" and of dismantling the emergency machinery that has been built up. On the other hand, the sentiment has frequently been expressed at these meetings that no demobilization is contemplated by the federal government; and this may conceivably prove to be the case. But I think it is proper to remind those who look upon all of the present activities of government as permanent that the question of their permanence does not depend solely upon the present in-

tentions of those groups who are now shaping these policies. There will be other prophets, other voices in the wilderness—and other lost tribes to follow them. Personally I should still conjecture that sooner or later we will have considerable demobilization to go through.

4. The problem of salvaging state and local governments in this country from the demoralized condition into which they have fallen and from the menace of being submerged under the weight of federal subventions, subsidies, and grants. In short, the problem of preserving the integrity of state and municipal government, under the menace of financial demoralization within and of federal domination from without.

Of these, I take it that the problems of demobilization will be the most disagreeable; the problem of financing the federal and municipal debts may possibly be the most complicated; and the problem of providing revenue will certainly be the most difficult; but of all of these, I believe the problem of restoring and maintaining the integrity of state and local government is the most important; and my concluding observations will have to do with this latter problem.

Herein I am not concerned over any traditional doctrine of "states' rights," theories of constitutional balances, or any superstitious devotion to "home rule" or local government. I am concerned over a condition approaching demoralization in the tax systems and finances and the administration of governmental services in our state and local governments—a demoralization that has taken the form of outright default on the bonds and other obligations of something more than a thousand municipalities and local governments, of a condition of virtual insolvency on the part of many more, of taxes whose confiscatory burdens have forced a drastic deflation of real estate and property values, with consequent delinquency, "tax strikes," and other disturbances, and of the crippling or suspension of essential public services.

In this condition of bankruptcy and helplessness, the federal government has attempted to come to the rescue by a policy of subventions and subsidies to state and local governments on a scale hitherto unprecedented. These subsidies were at first surrounded with conditions and restrictions intended to insure their grant only in cases of grave emergency, which state or municipal governments were temporarily incapable of meeting. But these conditions have been waived or relaxed and subsidies granted in increasing magnitude, until the acquisition of federal "easy money" for one's state or city has become almost the goal of American statesmanship. The *Chicago Tribune* carried a recent editorial exhorting Senator Lewis that he must "bring home the bacon" more rapidly than he had been doing—and Senator Lewis' past performance with the bacon could scarcely be described as slow. And when our distinguished mayor of Chicago was inaugurated into office, as head

of the second largest city in the New World, almost his opening declaration was, "I shall immediately go to Washington" and endeavor to secure money to pay the teachers, etc. Statesmanship throughout the nation consists in "immediately going to Washington."

The result is that we are in process of setting up a system of veritable "carpetbag" governments again, which differ of course from the "carpetbag" governments after the Civil War, but whose consequences are likely to be similar in many respects. In the present case, it happens that this is not primarily a reflection on the federal government. It is vastly to the credit of the administrators of the federal government and to our type of federal government itself, that it should have come through all the vicissitudes of the past two decades with its finances intact and its credit and resources unimpaired, and should be in position therefore to extend its credit and resources for the relief of state and municipal governments in distress. And it is vastly to the discredit of the administrators of state and municipal government and to our whole type of state and municipal government that these governments should have collapsed at a critical time when their efficient functioning was most necessary.

And this collapse has been brought about not by excessive or unforeseen burdens thrust upon them, in relation to the resources of their various communities. It has been brought about by the prevalence of antiquated and inequitable revenue systems, by a hopelessly incompetent type of governmental organization on the part of a heterogeneous conglomeration of local governments, by unsystematic and irresponsible types of budget making and expenditures, and by the low types of public office holder which these conditions place in public office and maintain there.

The remedy, therefore, lies not in spinning attenuated theories of constitutional law or in berating the federal government for its usurpations in the field of state and local government. The remedy may possibly involve some revision of our concepts of the fields of federal, state, and local government; but it will consist chiefly in such thorough-going rebuilding of the whole organization of local government, such reorganization of systems of budget making, expenditure, and financing, and such revision of tax and revenue systems as will prevent a repetition of the present humiliating conditions and will put state and municipal governments in a position to maintain the integrity and perform the functions of their respective fields. Of all the problems of public finance and taxation which the present period of expanding activities has precipitated, I believe this will prove to be the most important.

DISCUSSION

F. P. WEAVER.—I find myself in practically complete agreement with Doctor Fairchild's paper on "Tax Delinquency." I need, therefore, take only a few minutes of your time to add emphasis to certain phases which in my mind are of outstanding importance in causing tax delinquency.

I refer first to the statement that delinquency is chiefly a phenomenon of the property tax. Is not this due very largely to the fact that in no other tax is the ratio of tax to present incomes so completely ignored as in the levying of property taxes? If there is an exception to this statement it is in the case of the capital stock tax on corporations, but in this case the rate of taxation is so much lower than in taxes on real estate that the problem created in years of low corporation incomes is far less acute.

In my opinion little permanent progress in the solution of the problem of tax delinquency on real estate in periods of depressions will ever be made until the tax burden on real estate is reduced. This calls not only for greater economy in expenditures by state and local governments but also for the imposition of a smaller share of the total tax burden on property.

With property taxes absorbing from 80 to 100 per cent of all the net earnings from property, as is the case in many rural areas at present, and is not unknown in urban districts, and the consequent rapid vanishing of capital values, little incentive for clearing a property of tax liens remains to the owner who by any set of circumstances, either voluntarily created or imposed against his will, has become delinquent in tax payments for a couple of years or more. Even though the owner of the property may have other incomes out of which he is able to pay the taxes on property, there is little incentive for him to do so if in his judgment little net income above taxes can accrue to him over a period of years. There are thousands of property owners in Pennsylvania today who have lost most of their enthusiasm for property ownership by just such a prospect, intensified by the uncertainty of future rates of property taxation.

So long as the alternative is the payment of one year's taxes or losing the property, doubt as to the wisdom of payment is not so great, but when taxes for two or three years have accumulated against a property with the prospect of continuing high levies in future years, a defeatist psychology is created rapidly in the minds of property owners which is extremely difficult to cope with.

This leads to the second point in Doctor Fairchild's paper which I would like to emphasize; that is, the importance of prompt and efficient execution of a collection policy. Unless property taxes bear a lower ratio to incomes from property than is at present the case on much farm property, allowing taxes to become delinquent or past due for several years before definite steps are taken to enforce collection not only destroys the motive for payment but is reasonably sure to make payment impossible and thereby to increase the certainty that the owner will lose his property.

Unless inability to pay property taxes when due is the result of an emergency which is not likely to recur next year and the year after, postponement

of payment can be of no real, permanent help to the owner. If it is due to such an emergency, special treatment should be possible rather than have the regular collection rules and procedures lenient enough to cover such cases which is now true in most taxing districts.

Unless property taxes are low enough so that they can be paid out of current earnings even in rather unfavorable times, and unless these taxes are collected annually to the extent of 90 or 95 per cent of the levies in any district, property tax delinquency is bound to become a serious, cancerous development with which no local government can cope indefinitely.

JAMES W. MARTIN.—It is doubtless true, as Professor Simpson has pointed out, that there can be no objective, quantitative measure of the scope of government at present as compared with past centuries. Statistical data for bygone centuries respecting economic activity in general and governmental activity in particular are too meager to render such an attack fruitful. However, two possible methods of approach along this line may be suggested. In the first place, the proportion of the total population engaged in the public service in the past may be compared with the total at the present. Data for such comparison are scanty, and the validity of the comparison is rendered questionable by the great differences in forms of social organization. A more promising attack on the problem might be made by comparing the proportions of national income utilized for public as distinguished from private purposes in earlier centuries and now. Here again the data are inadequate but perhaps less hopelessly so. At any rate there are frequent estimates for the past two or three hundred years. Examination, for example, of the work of Baron von Bielefeld,¹ von Justi,² and Sir William Petty,³ supports the belief that the proportion of national income spent in even seventeenth and eighteenth century western Europe for governmental activities ranged from about 10 per cent to roughly 85 per cent. These figures are not radically different from the proportions spent thus in the United States and Europe during the past decade.

If intensive investigation supports this hypothesis, it also bolsters Professor Simpson's view, which is based on a different approach. That the proportion of national income now utilized through government is not greatly different from the proportion so utilized two or three hundred years ago makes it obvious that the increase in governmental costs during the recent past has probably been a phenomenon of purely temporary character and one which is recurrent in nature.

Another important consideration is suggested by the so-called "optimistic" classification of public expenditures proposed by Professor H. C. Adams.⁴

He demonstrated that the expenditures for military purposes and for the administration of justice tend to decline in relative importance; whereas, those for developmental functions tend to increase. Thus, during the recent period of growing public expenditure, despite the expensive World War,

¹ *Outline of Political Science*, Part I, chap. 12, quoted from von Justi.

² *System des Finanzwesens*, Book IV.

³ *Political Arithmetic*, chap. 7.

⁴ *The Science of Finance*, chap. 8.

the rise in governmental costs most frequently bemoaned has been occasioned by commercial and developmental activity (as defined by Adams) on the part of state and local government. Many of the commercial activities of municipalities are profit-making undertakings, or at least self-financing, as Adams was careful to point out.

So it is apparent that past upswings in governmental costs, arising almost wholly from military requirements, have left nothing tangible in their wake; on the other hand, the recent rise has come largely from such demands as those for more and better highways, increased facilities for improving public health, better sanitary plant, and more effective educational equipment and personnel. After a few years following the increases in past centuries, there has been nothing left as a social souvenir except the memory of a military victory, or defeat; after the recent increases become a matter of history, there should be better physiques, more effective sewage systems, and a better educated citizenship.

It is not suggested that extravagant or unjustified governmental expenditures in the course of the recent past are lacking. Rather, the background of the general tendencies of the public expenditures is being sought. In many instances, states and localities, as well as the federal government, have undoubtedly wasted money by building too many roads and post-offices, by doing the work through outworn governmental organization, by borrowing easy money rather than paying bills when incurred, and by other unfortunate practices. However, there is no evidence that the extent to which abuses have occurred has been relatively greater in the recent past than in expansions occurring in earlier times. Indeed a good case could be made for a contrary conclusion. Moreover, evidence that the abuses have been greater in public than in private activity is completely lacking.

If the interpretation in terms of perspective given by Professor Simpson and the point of view I have thus far attempted to present are sound, two conclusions are apparent. First, the increase in governmental expenditures which has occurred recently is by no means unique and is probably one of the irregularly recurring phenomena of history, rather than the unprecedented occurrence which much recent literature represents it to be. Second, whereas in earlier rapid upswings in governmental costs the lasting result has been an episode in military history, there is reason to expect that the recent increase will leave a permanent heritage of greater social capital and a physically and intellectually improved citizenship.

I am then in complete accord with Professor Simpson's view that there is in process continuous redefinition of the scope of governmental activity without any significant quantitative change. My agreement with his partial enumeration of problems for the expert in the field of public finance is equally complete, but I shall not discuss that subject matter except to agree that the restoration of state and local government to a respectable status is the most important problem involving government finance which has been precipitated by recent developments.

It seems to me, however, that it is important to distinguish between the rehabilitation of state and county government, on the one hand, and of municipal government, on the other. The history of the past two decades—

particularly the last two or three years—has demonstrated the complete impotence of state government in dealing with problems hitherto regarded as peculiarly state matters. Counties and townships have proved themselves equally incompetent under modern conditions. Evidence of the failure of states to meet their alleged responsibilities may be shown by their appeal to the federal government over a period of two decades to provide machinery for dealing with the supervision and assistance of railways, farms, coal mines, and, more recently, relief, work relief, and other emergency depression problems.

This default on the part of state government is not due to politicians "cussedness." There has, no doubt, been a reasonable share of political chicanery in the mismanagement of state government; but the primary cause of the difficulty is that the American commonwealth, conceived in eighteenth and early nineteenth century terms, is not an instrument fitted to cope with the intricacies of modern life. The incompetence of state governments has been the culmination of a course of evolution in which the commonwealth themselves did not have a fair share.

Social life, formerly extending little beyond the immediate community, now frequently involves national, or at least interstate, relationships. Business activity, a hundred years ago highly localized in most of the country, is now typically interstate and even international. Communication and transportation, formerly local and extremely slow, is now world-wide and rapid.

There is really little to cause surprise in the fact that state government, an institution very remarkably like the government of the commonwealth of 1800, should fail to fit in an economy characterized by the use of steamboats, railroads, telegraphs, telephones, electric railways, motor vehicles, radio and airplanes—to mention only a few of the factors which have revolutionized transportation and communication repeatedly in the past century and a third. Viewed dispassionately and rationally, it seems more remarkable that the state government has persisted as long as it has.

It may be suggested that county and township government has also in large part come to be obsolete. The array of sheriffs, deputy sheriffs, constables, county attorneys, district or circuit attorneys, county clerk, jury fund trustees, master commissioners, district or circuit clerks, justices of the peace, coroners, and the rest belongs to a social system which has ceased to be. If local government at the present time is to be worth maintaining, it must render definite services which need to be performed; and the system of law enforcement must be reworked to fit into an economy no longer local in its scope. In point of fact, the collapse of county and township government has been just as complete, even though not so bizarre, as the failure of state government.

It would almost be accurate to say that the states have shown competence in the recent past, if at all, only in dealing with matters which were formerly problems of purely local concern. In many states, there has been fairly successful management of state highways. There has been improvement, through state action, in the administration of education, health, taxation, welfare,

and certain other functions which the nineteenth century regarded as of strictly local concern.

On the other hand, while the history of municipal government to the second decade of this century is one of the darkest spots in our political development, beginning during that ten years and continuing to the present time, there has been a remarkable increase in the effectiveness of municipal government. Cities in large numbers have adopted definitely modernized procedures. They have provided for continuous and integrated record-keeping systems; they have authorized the employment of certified public accountants to make outside audits; they have worked out unified purchasing and merit plans of personnel recruiting; they have systematized borrowing practice and debt administration; and they have reorganized the entire administrative structure along functional lines. The extraordinary growth of city manager government is one of the symptoms of the remarkable change which has occurred in recent years in the direction of professionalizing municipal government service.

Also, the character of municipal activity has been definitely recognized as largely business rather than political. Municipal government at the present time exists to provide police protection, guard against fire hazards, assure community health, build and maintain streets, sewage systems, and other public utilities, and provide educational and recreational facilities for both children and adults. If society finds it desirable to supply collectively certain other goods and services, modern municipal government makes available the machinery for doing so.

Moreover, in spite of the fact that the states have "skimmed the cream" of the taxing devices left after the federal government's first choice, municipal government in general has met the financial tests of the last three years much more effectively than has state government. It is true such poorly governed cities as New York and Chicago have encountered difficulties, and such over-expanded municipalities as Detroit and Los Angeles have found themselves in dire straits; but the failures on the part of these largest municipalities are more than offset by the remarkable success with which hundreds of city governments have met the depression situation in spite of state-imposed limitations.

If this is a fair picture of the state and local government situation, the conclusion seems obvious. From the point of view of financial support, state, county, and township governments are not worth rehabilitating for the performance of traditional functions; municipal government is distinctly worth saving, not only for the sake of continuing the constructive activities and methods of functioning developed during the past twenty years, but also for the suggestions implicit in recent municipal progress for local government in rural areas. Doubtless state governments will survive for the performance of certain functions, though perhaps they are not fitted to the task as well as other agencies which might be developed except for the sentimental values inhering in present commonwealths.

HARLEY L. LUTZ.—Professor Simpson has performed a useful service

in raising, as he has, the issue of the tendencies in the changing scope of governmental authority, and in contrasting the full sweep of this authority during the Golden Age of *laissez faire* and in our own times. He has also set out, although in outline form only, the significant aspects of the current program of governmental activity, as these must be viewed by the student of taxation. As he has recognized, the subject is so vast that any limited discussion of it must be severely selective, and for reasons which appeared to him good and sufficient, he has elected to devote his attention primarily to matters of perspective.

A proper perspective, an authentic setting, are always essential to clear understanding of any problem, and I cannot take issue with Professor Simpson for deciding to place his major emphasis as he has. By way of enlarging the scope of the discussion, I shall direct my remarks at certain implications, financial and otherwise, which are involved in the present governmental program.

The economic and social philosophy underlying the enormous program of the present administration may be stated in either of two ways. It may be regarded simply as a vast emergency undertaking, aimed at the rapid restoration of a level of prices and a volume of economic activity at the new price level, that will relieve debtors, taxpayers, and the unemployed. Or it may be viewed as the entering wedge for an extensive reorganization of our economic structure and our governmental policy, whereby there may be perpetuated a degree and a character of governmental control over economic processes that would be rather mildly characterized by the term "paternalistic." Some apologists would say that both objectives are held and they would explain the meager response to the recovery efforts to date by contending that recovery must come slowly in order to be kept in pace with the growth of federal paternalism. I hasten to state that no one openly calls it "federal paternalism." A much more attractive expression, "The New Deal," has been coined, but this shift in terminology should deceive no one.

If we accept the hypothesis that the present program is simply an emergency effort to restore prosperity more quickly than it would come under the influence of slow-motion natural forces, we may regard it as one of the periodically recurring, temporary expansions of governmental activity of which Professor Simpson speaks, and we may perhaps safely assume that there will follow eventually a diminution in its scope and cost, although past experiences with emergency expansions of the federal administrative organization and expenditure give us little room for believing that either the organization or its cost will shrink to the levels that had been customary before the expansion set in. Viewed thus, our principal concern should be over the efficacy of the program to accomplish the desired result. I pass this by, although I must record my own lack of enthusiasm for some parts of it and for the conception of the problem upon which it appears to be based.

If we accept the hypothesis that we are confronted, not with a transient governmental expansion devised to deal with an emergency, but with a de-

liberate attempt to perpetuate extensive governmental control over, interference with, and participation in, the ordinary economic activities of the community, it is time that we considered carefully the road we are asked to travel. My subsequent remarks are based on the assumption that this is the real objective of the program. If this involves an injustice to it or to the objectives of its sponsors, the misconception will no doubt promptly be pointed out.

Some so-called economists and others who incline toward the left-wing conception of the present program for the enlargement of governmental activity and authority over economic affairs, have derived vast entertainment from their condemnation of orthodox economic doctrine, and the mildest of their strictures has been that which undertook to establish its consanguinity with the logic of "Alice in Wonderland." A new economic philosophy has accordingly been provided. When we examine this new economics, we find that it is a reincarnation of the *justum pretium*, the "just price" of the medieval canonists and guilds. The economic doctrine of the nineteenth century has been discarded as obsolete while that of the thirteenth century is offered to us as brand-new. The price, wage, and profits philosophy of the recovery legislation and of the codes established under this legislation is that of the medieval just price, but with this difference from the earlier application. The thirteenth century advocates of the just price feared monopoly and sought to prevent it, whereas its twentieth century advocates seek to prevent competition through lowered prices. Monopoly has so far lost its terror today that the new legislation expressly suspends the anti-trust acts.

Having gone back seven hundred years for our new economic doctrine, it is only natural that we should be asked to absorb also the absolutist conception of government which is congenial to the just price economics. The New Deal political philosophy seeks to revive the doctrine of fixed economic status, but again it is given a twentieth century twist. The medieval serf was bound to the land and forced to cultivate it. The modern farmer is paid in cash to remain on the land and refrain from cultivating it. We are adding a new government function, that of providing an indefinite number of cushions and shock absorbers to protect individuals and economic groups against losses and against the consequences of their own incompetence or error. If a man cannot make both ends meet in certain kinds of farming, he is to receive a bonus for being an idle farmer. This may become an hereditary privilege, as serfdom became an hereditary obligation. If another man cannot pay the interest on his mortgage, the Treasury will guarantee it. If too many people go into the dairy business, we must have milk codes, with price fixing and processing taxes in order to have contented dairymen as well as contented cows. Logical next steps under this theory of governmental shock-absorbing would be: a tax on chain stores to provide a subsidy for the independent merchants who are crowded out; a tax on apartments, hotels, and residences to subsidize the real estate subdivider; a tax on investors to repay stock speculation losses; and finally, a tax on everybody in order to keep everybody else in business and happy.

We are being taught, as part of this new political philosophy, that the

federal treasury is an inexhaustible source of funds for the payment of these bonuses and subsidies. And when it gets in too deep, as it has every prospect of doing, we shall find that another bit of medieval chicanery which was in high favor with extravagant princes as a means of recouping their treasuries is being favorably considered; namely, the devaluation of the currency. Professor Simpson has very properly expressed concern over the demoralizing effect of federal subsidies upon state and local governments. He might have added that as long as hope remains that the federal government will provide a financial cushion against the results of corrupt and incompetent local government, there can be no prospect of securing the administrative and fiscal reforms which are essential if the taxpayers are to be relieved of their crushing burdens.

I submit that we cannot hope to combine successfully the ideal of a vast, government-financed shock-absorbing paternalism and the ideal of a private economic system operated by enterprise and motivated by profit. The paternalistic ideal is essentially inconsistent with the enterprise and profit ideal. The time limit to this discussion permits mention of only two of the many objections which could be advanced against the paternalistic conception of government and the indefinite expansion of governmental authority which it involves.

First, the paternalistic viewpoint postulates a degree of omniscience respecting the proper direction which economic development should take that does not exist anywhere, and which therefore could not possibly be found in a bureaucracy. To illustrate: In a recent lecture by a professor who is popularly regarded as a member of the "brain trust," although he modestly disclaimed his right to such membership, it was suggested, as a remedy for the abuse of corporate financial power, that some federal agency should have the authority to approve or disapprove proposals for long-term capital financing. One thinks at once of the railroads' financial experiences, and also of how Henry Ford might have fared thirty years ago at the hands of such a board. An elderly judge of my acquaintance out in Utah is fond of quoting one of his associates on the bench to the effect that the constitution guarantees to every man the inalienable right to make a damned fool of himself. The proposal for a federal investment control board would restrict this right, but I suspect that over a generation there would be about as high a percentage of foolish investments in such a board's approved list as in its rejected list. I am unwilling that government should seek, by such a device, to prevent people from enjoying the constitutional right which my judicial friend holds to be theirs.

My second objection is financial in nature. The progressive expansion of governmental authority, involving as it does both regulation of private enterprise and an invasion of the field of enterprise by publicly owned capital, tends to increase aggregate taxes while it restricts the taxpaying capacity of the people. The restriction arises through the control of production costs upward and through the inevitable tax exemption of publicly owned properties. There can be but one outcome for such a policy.

The federal government's present financial position and its prospects

demonstrate the incompatibility of the ideals of paternalism and free enterprise. The expenditure facts are familiar to all, as is the further fact that these expenditures have been financed by a rapid increase in debt. Between June 30, 1930, and September 30, 1933, the interest-bearing debt rose by \$6,750,000,000 or approximately two-thirds of the amount by which this debt had been diminished between August 30, 1919, and June 30, 1930. It is evident that the current peak of debt increase has not yet been reached, and we may see three-fourths or more of the earlier debt redemption wiped out before the borrowing program is checked.

Whatever the final debt situation may be, it would have a different significance under a policy aimed simply at recovery, with reasonable freedom to produce the profits and income that could support substantial taxation for debt retirement, than it would have under a policy of regulating prices, wages, and profits, guaranteeing losses and subsidizing the incompetent and the importunate. Such a policy would curtail the revenue-yielding possibilities of federal taxes while it would prevent the Treasury from realizing that margin between income and outgo upon which debt retirement depends.

Considering further the federal debt situation, it is a matter of some concern to realize that the total short-term debt, including Treasury notes, certificates, and bills, is now about \$7,500,000,000, or about one-third of the entire interest-bearing debt. This proportion has never been exceeded, and this absolute amount of short-term debt was exceeded only in the early twenties, when the Victory Notes maturing in 1928 were properly a part of such debt.

The short-term debt situation presents a grave currency inflation menace. The inflation amendment authorizes \$3,000,000,000 of Greenbacks, to be issued to purchase or redeem federal debt obligations, and the Joint Resolution suspending the gold clause makes them legal tender for debt redemption. This amount of currency plus the so-called "profits" from substantial currency devaluation would solve the immediate short-term debt problem out of hand. With such instruments in reserve the Treasury's complacency is easily understood, as is also the growing concern of the country.

JENS P. JENSEN.—I will use the time allotted to show that in studying the present epidemic of tax delinquency it would be well to relate it to past experience. Logically, we ought to find delinquency to be a recurrent phenomenon with relations to the business cycle similar to those of business failures and unemployment.

The literature on tax delinquency that has come into existence during the past two or three years is primarily descriptive, showing the extent and the character of delinquency. A certain amount of analysis is included and is doubtless intended to show the causes. The purpose of the writing being largely remedial, the prescription must be accompanied by sufficient diagnosis to justify the remedies offered. The writing has been done mostly by tax administrators and their professional advisors, both of whom were facing practical problems in the fiscal emergencies caused by dwindling revenues. No criticism is implied in saying that these writers limited themselves to current events and conditions and couched their explanations in terms of contemporary, or near contemporary, events and conditions. For example, among the

causes of delinquency are listed speculation in real estate and the consequent deflation of property values. This explanation is all to the good, as far as it goes. But it seems that the time has come for a more far-reaching analysis, and for an incorporation of the phenomenon of tax delinquency as an integral part of our theory of fiscal science or public finance. As a preliminary or contemporary treatment I suggest a historical study, directed to discover whether tax delinquency, in its aggravated and troublesome form, is a recurrent phenomenon, and if so, what can be learned from previous epidemics. I can only briefly indicate my reasons for this suggestion, along with some of the difficulties that will be faced in making such a study.

It would be logical to find that just as the present epidemic of delinquency is a phase of the current depression, so previous depressions have had, as integral parts, tax delinquency in more or less aggravated degrees. It lies in the nature of the business cycle and in the nature of the property tax that this should be so.

First, as to the pertinent phases of the business cycle. It has been characteristic of major business depressions that property values have fallen more or less precipitately. It has also been characteristic that the national income has fallen, certainly in terms of dollars, and probably also in terms of purchasing power. These two phenomena are not unrelated. For, apart from certain speculative booms, the capital value of real property is the present value of all anticipated income from the property. If that is not so, then capital value and selling value must be entirely capricious. Whatever in a depression drags down the prospective income from property also drags down the capital value of property.

As I was reducing these thoughts to writing, I had before me some advance sheets of a book written by Mr. Homer Hoyt, which is now published under the sponsorship of Chicago Title and Trust Company, entitled *100 Years of Chicago Land Values*. The values of the land within the 1938 limits of Chicago, as found by Mr. Hoyt, for selected years of peaks and troughs, are as follows: In 1838, \$168,800; three years later, in 1841, \$10,000,000; in six years, in 1847, \$1,400,000; after fourteen years of increase, in 1861, \$125,000,000; again, in 1866, five years later, only \$60,000,000; after twelve years of increase, in 1878, \$575,000,000; after six years of decline, in 1879, only \$250,000,000; after thirteen years of growth, a sixfold increase, in 1892, to \$1,500,000,000; in five years, in 1897, a shrinkage to \$1,000,000,000; after a long period of twenty-nine years of increase not seriously interrupted, to \$5,000,000,000 in 1926; and finally a descent to \$2,500,000,000 in 1938. The lesson drawn by Chicago boosters is of course that "the curve of land values in Chicago refuses to stay down"; and the implication is that the upward trend will continue. Be that as it may, the significance of these figures for the present purpose is not in the secular trend, but in the deviations from it; and they are very large. They represent temporary variations in the desirability of, or the demand for, land in Chicago. They probably illustrate, though they do not picture accurately, the variations in property values for the country as a whole during the five major swings of the business cycle during the century.

In the second place, let us look at the nature of the tax. One of the most noticeable features of the property tax is the consistent increase in the revenue. Whether this increase in the tax has been more rapid than the increase in property values in the long run is perhaps debatable; but certainly the rate of growth of property tax revenue has outrun the rate of growth of property values during the past decade. This fact is not without significance.

Much more significant than the increase is the stability of this revenue. It has been used either as the sole tax or as the tax by which was raised whatever revenue was needed and not available from other sources. To be sure, there are always drastic efforts to reduce the tax during hard times; but these efforts seldom yield much success. There are usually debt services to provide for, and sometimes hard times bring additional expenditures, as for relief purposes at the present time.

Another characteristic of the property tax is that, at least in so far as it falls upon land, it is not readily shiftable, if at all. In so far as it is non-shiftable, it reduces the tax-clear income from property. It is essentially a fixed payment which must be made if the property owner is to enjoy uninterrupted possession of his property.

Gathering these threads together, we have a situation somewhat like this: The variations in the value of property indicate variations in the eagerness of the owners to hold or acquire property. The tax, or the sacrifice of parting with the tax money, on the other hand, is, in a sense, the cost of holding the property. But the eagerness to hold property weakens in hard times, as the anticipated net, tax-clear income from it decreases. And the burdensomeness of the cost of holding property increases during the depression periods since the tax does not decrease much and the purchasing power of the monetary unit increases. With the weakening of the desire to hold property, and the increasing burdensomeness of holding it, we should expect that the owners would refuse to a greater extent than at other times to pay taxes in order to hold it. There has been, as stated above, some listing of causes of delinquency. It is probable that by far the largest part of the abnormal delinquency can be accounted for by two general causes. One is that, owing to bad economic conditions, the property owner simply cannot raise the money for the taxes; and the other is that, though he might raise the money, he deems it not worth while to pay the taxes in order to hold his property in view of the reduced prospective tax-clear income from it. Those at least are, it may be confidently asserted, the two principal causes operating in the present period of depression. There is no reason why we may not assume tentatively that these same causes were operating, with the same result, though in varying degrees, during earlier depressions.

Yet when we turn to look for statistical or any other form of historical material we face a discouraging situation. Professor Fairchild, as has every one else who has tried to discuss the problem, has shown the difficulties involved in securing information about even the percentages of currently uncollected property taxes. The facts, of course, are there—on the books of the tax collector. But they are seldom taken from these books, combined, made matters of official record, and preserved so that over a period of years

they may become useful. There is, with rare exceptions, no appreciation of the value such facts would have. This is all the more regrettable since such information might usually be had with practically no extra cost. In Kansas, for example, the county clerk and the county treasurer both report collections to the state auditor and the state treasurer, respectively, for purposes of settlement by county treasurers with the state treasurer. A small change in the blanks upon which this report is made would render the information useful for showing delinquencies; and there would be a speedy, automatic, and almost costless source of information. But it has not been possible to make the necessary change. Such is presumably the case in other states; and such was, presumably, if only still more so, the case in former years.

Information that such data were not available, or were not thought worth recording and discussing, is indicated from another source. In about one-half of the states, and in a number of the larger cities, fiscal and financial histories have been written. These histories practically all neglect all but one phase of the collection of taxes. The collection machinery is discussed, often at some length; but its efficiency is rarely treated, and then only in general terms. In only very rare instances is reference made to the depression and its effect upon the delinquency; and where, as if at random, any unusual delinquency during a period of depression is noted, the writer explains it away on other grounds than hard times.

Professor E. L. Bogart, in his *Financial History of Ohio*, notes (page 197) that "after the War of 1812 and the consequent 'hard times' the system [of collecting real estate taxes] broke down completely." But later he lays the blame, not on the "hard times," but on the too liberal redemption laws which rendered tax titles worthless. Nowhere else is there any indication that "hard times" increased the delinquency in Ohio. Yet it is clear that the present "hard times" have increased delinquency in that state.

Professor R. M. Haig, in his *History of Taxation in Illinois*, notes the very poor collection of land taxes during the period 1809-88, but no indication is given of any depression as a factor in the delinquency. Later, however, he states (page 85) that during the next period "the situation was particularly acute because of the economic depression which developed and continued through 1848 and 1844." No references are made to any such effects during later depressions.

Mr. W. C. Fankhauser, in his *A Financial History of California*, has given (page 242) some figures of actual delinquencies of the state property tax (which is not of course the same necessarily as the local taxes) for the years following the depression of 1878. For the fiscal year ending June 30, 1874, 12.5 per cent of the state tax was delinquent. For each of the following years, respectively, the percentages were 20.0, 10.2, 5.5, 5.09, and 4.4. But he at once robs us of any joy in discovering anything by explaining the large percentages of delinquency of the first three years as being due to litigation over the assessment of solvent credits and mortgages. He does however give (page 348) what seems to be the only clear bit of evidence in support of my contention which I have found in any of these monographs. In California the state then took title to delinquent property, subject to redemption by

owner or, failing such redemption, sale by the state. During the four years 1906-10, the state took title to about 22,000 parcels each year, without much variation from year to year. But the number of parcels redeemed increased from 18,662 during the first year to 28,124 during the last. In other words, while the short-lived depression was on, the state was taking title to real estate much faster than it was being redeemed by the owners; but later, with returning prosperity, presumably, the redemptions were somewhat in excess of the sales to the state.

These writers deserve credit for even these meagre figures. The other monograph writers in this group have given us nothing at all applicable to the problem I have set. I have given these figures at length merely because they show how little the question I have raised has troubled any one in earlier years. Does this lack of interest indicate that there was no abnormal amount of tax delinquency during and as a result of earlier depressions in the states about which such histories have been written? I believe not. But it does prove that anyone trying to investigate the problem is going to have difficulty securing his facts. Still, it ought to be possible to secure enough to ascertain whether anything could be learned from history about tax delinquencies, and about the relation of the different phases of the business cycle to the phenomenon of delinquency.

If, on the other hand, my conjectures should be found to be in error—if it should be found that the present business depression is the first one that has had as one of its characteristics a calamitous epidemic of tax delinquency—then we have a new problem requiring an answer.

SESSION ON UNEMPLOYMENT AND PUBLIC WORKS

THE ECONOMICS OF PUBLIC WORKS

By SUMNER H. SLICHTER
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In a western state a railway bridge had been destroyed by fire and it was necessary to replace it. Two days later came the superintendent of the division. Alighting from his private car, he encountered the foreman of the bridge builders. "Bill," said the superintendent, and the words quivered with energy, "I want this job rushed. Every hour's delay costs the company money. Have you the engineer's plans for the new bridge?" "I don't know," said the bridge builder, "whether the engineer has his picture drawn yet, but the bridge is up and the trains is passin' over it."

The government in Washington is in the position of the railroad foreman who had to rush through an emergency bridge without plans—except that it has had to build many emergency bridges. No doubt some of the bridges which it has built should not have trains running over them very long. Possibly a few should not have trains running over them at all. In presenting this paper I may be compared to an engineer who appears with a blueprint after the emergency bridge is done and points out certain respects in which the bridge will not do permanently.

Until several years ago most proposals to alleviate depressions by expanding public construction contemplated simply long-range planning of public works. These proposals involved no ultimate change in the total volume of public expenditures but merely changes in the timing of the expenditures. It was assumed that a long-range program of public construction would be planned in the light of its cost and of the ability and the willingness of the community to bear the burden. Then it was proposed to concentrate construction as much as possible in periods of depression. Such a proposal is easy to defend, for it involves no ultimate change in the size of the government debt and no radical effects upon the price structure. The government simply purchases less of certain materials and services at times when the rest of the community is buying more and it buys more of these materials and services at times when the rest of the community is buying less. Over a period of time, however, the volume of purchases by the government is presumably not altered. And although the government borrows to spend during depressions, it reduces its debt during booms so that in the long run there is no change in the government debt.

The present public works program is far more ambitious than mere long-range planning and fraught with far greater possibilities of both

good and evil. The government is deliberately setting out to spend enough borrowed money on public construction to lift business out of the depths of the depression. Of course, the expenditures on public works are far from the entire recovery program, but they are predicated on the assumption that business needs this stimulus, and the magnitude of the expenditures is determined by the severity of the depression and by the amount of stimulus which business is assumed to require. Such a program may conveniently be designated a "market-supporting" program to distinguish it from the less ambitious proposals of long-range planning. You will appreciate at once that we are gambling with big stakes. If the program works, it may be regarded as practically costless for it will more than pay for itself by increasing production and employment. If it fails and we saddle ourselves with an enormous increase in the public debt without alleviating the depression, perhaps the community may feel unable or unwilling to pay the debt.

In this paper I shall not analyze in detail the specific program which the federal government has launched, but I shall examine the economics of programs of this general type rather than the economics of the long-range planning of public works. My discussion will fall into four principal parts. First, I shall discuss the need for supporting markets during depressions; second, I shall point out some of the limits to the usefulness of public works as a device for accomplishing this purpose; third, I shall indicate some dangers involved in public works programs of the market-supporting type; and, finally, I shall make some comparisons between public works and other methods of alleviating depressions.

I

Let me begin the analysis by expressing the conviction that there is urgent need of developing large expenditures which are not dependent on profit prospects and of dovetailing them with the expenditures which do depend on profit prospects. In no other way, short of abolishing production for profits, can the total volume of spending in the community be stabilized, because the spending which is governed by profit prospects is bound to fluctuate.¹ The instability of expenditures that depend on profit prospects is the result of a conjunction of circumstances; but the crucial one, however, is the fact that the demand for goods is not ready-made but depends in large measure upon the success of business men in discovering new ways of making money by changing products or processes or by enlarging operations. When business men discover an increasing number of such opportunities, expenditures rise and the demand for commodities and services increases. But if managers

¹ By stabilizing the volume of spending I do not necessarily mean keeping it constant in amount but simply free from fluctuations. Steady growth is merely one form of stability.

experience unusual difficulty in discovering new ways of making money, there is a shrinkage in the demand for capital goods and for the labor used in making and installing them. The drop in demand, however, is not confined to capital goods and the labor used in producing them. The reason is obvious. When employees in the capital goods industries lose their jobs and when the owners of plants in the capital goods industries receive smaller dividends, they must reduce their purchases of consumers' goods.

It is unnecessary to discuss the multitude of reasons why managers have varying success in discovering new opportunities to make money. Let me simply remind you that to assume that profit-making opportunities will be discovered at a constant rate is to assume, among other things, that technology will discover new products and new processes at a constant rate and that the new products and processes will bear a constant competitive relationship to the old products and processes—assumptions for which there is no warrant. It is theoretically conceivable that prices might be so flexible that the impact of a changing world upon the price structure would not alter the success of managers in finding new ways to make money, that no matter what changes occurred in the external world, prices would respond so promptly that profit prospects would always remain equally attractive. But although such fluidity of prices is conceivable, everyone knows that it is practically unattainable. Hence profit prospects vary and, as they do, the spending, production, and employment which depend upon them are bound to fluctuate.

Schemes for controlling credit and the relationship between saving and private investment offer some prospect of reducing the fluctuations in spending but they all leave undisturbed the fundamental fact that discoveries of new methods, new products, and new natural resources do not occur at an even rate. Consequently, there is little hope that fluctuations in the rate of interest alone will stabilize the prospect for profits. We are forced to the conclusion that unless spending which does not depend upon profits can be dovetailed with spending which does, millions of men are bound to be thrown into idleness every few years because business men fail to discover enough new opportunities to make money. Upon this fact rests the case for large programs of public works of the market-supporting type.

II

Before we examine the problem of stabilizing all spending, let us notice the magnitude of the undertaking. In 1932 debits to individual accounts were only about 40 per cent as large as in 1929. Allowing for the fact that cash payments fluctuated less than check payments, the volume of spending in 1932 was perhaps roughly half the volume in 1929. To

offset such a precipitous drop in private spending would obviously require an enormous expansion of public buying. Now under favorable conditions a given outlay on public works may create a volume of private spending that is several times larger than the government expenditures on public construction. If the government expenditures, however, increase the total volume of spending, accelerate the reduction of excessive inventories and the repayment of indebtedness, and reduce losses and bankruptcies, their benefits may be far-reaching. By thus protecting the credit of firms, they will reduce the tendency of banks to force the liquidation of indebtedness. And by preventing business confidence from shrinking to the depths that it otherwise would, they will halt the tendency for business enterprises to postpone commitments and thus will tend to sustain the velocity of circulation.

But even allowing for the fact that a given outlay on public works under favorable conditions may have a very large effect upon the volume of private spending, it is obvious that an enormous program of public works would have been necessary to offset the drop in private spending between 1929 and 1932. Hence the possibility of stabilizing the total volume of spending by dovetailing public buying with private would appear to require a drastic reduction in fluctuations of private expenditures. The outlook for this is none too bright. Even in 1932 deposits subject to check were over two-thirds as large as in 1929. This indicates that rigid control of fluctuations of credit would not prevent enormous fluctuations in spending. Obviously, however, the achievement of stability through dovetailing presupposes drastic control of credit. The violence of fluctuations in private spending is due to the fact that credit expands at a time when the velocity of circulation is also rising. This suggests the conclusion that increases in the velocity of circulation should be offset by contraction of credit. But I do not believe this to be possible, for as long as we have a banking system of the present type, a quickening of business must produce simultaneously an expansion of credit and a rise in the velocity of circulation. Perhaps, therefore, the achievement of stabilization is incompatible with the retention of the present credit system.

The breakdowns in exchange which we call depressions have a dual nature. For one thing, they are reactions to maladjustments which develop between supply and demand. These maladjustments may develop in a vast variety of ways. Naturally, they all carry with them maladjustments in the price structure. For business to pick up, these maladjustments must in some measure be corrected. This means that there must be changes either in the prices or in supply and demand, usually in both. But although depressions are reactions to maladjustments, they are far from being simply corrective reactions. On the contrary, they are themselves a source of maladjustments, for the very drop in spending, which is the essence of depression, intensifies existing maladjust-

ments and creates new ones. Furthermore, the prices which change first are not necessarily those which are most in need of being changed. In order to effect the necessary readjustments there is usually needed a drop in costs, but many cost prices are among the slowest to drop.

In so far as expenditures on public works halt the drop in the total volume of spending, they may reduce the tendency of depressions to create new maladjustments. As a general rule, however, it may be said that the construction of public works does not remove the fundamental causes which produce depressions.³ Suppose, for example, that a depression occurs because technological discoveries have failed to provide enough new profit-making opportunities to maintain the demand for capital goods. The drop in the demand for capital goods produces unemployment and losses in the capital-goods industries, which, in turn, reduce the demand for consumers' goods and create unemployment and losses in the consumer-goods industries. All of this means a smaller volume of spending and a depression. The expenditures on public works may counteract in some measure the drop in private spending, but the fundamental difficulty, which was the failure of technology to advance fast enough to maintain the demand for capital goods, has not been remedied. Of course, if the former rate of technological advance is promptly resumed, all may be well and public works will have served as a useful stop-gap in protecting the community from the consequences of fluctuations in the rate of technological discovery. But suppose that the previous rate of technological discovery is not promptly resumed. The country is unable to maintain a heavy outlay on public works indefinitely. When the expenditures cease, the depression may be resumed in full force and the country may find itself saddled with a heavier burden of debt and with the maladjustments which precipitated the depression still uncorrected.

Or suppose that a depression occurs because important branches of agriculture have become overdeveloped relative to manufacturing. If farmers are unable to buy enough manufactures, unemployment develops, with the result that the market for farm products shrinks and the overdevelopment of agriculture becomes worse. What is needed to get industry operating in a normal fashion is to restore the proper relationship between agriculture and manufacturing. Of course, expenditures on public works may be of temporary help in sustaining the demand for agricultural products and thus in cushioning the effects of the depression on agriculture, but they will not correct the underlying maladjustment. As soon as the public credit is exhausted or the willingness of the public

³ Under some circumstances and within modest limits expenditures on public works may assist in removing the causes of the depression. For example, by helping to maintain the market for goods, the outlay on public works may assist enterprises in shifting out of industries which are overdeveloped into others which are not.

to support the public works program ceases, the original maladjustment between manufacturing and agriculture will again make itself felt.

Public works programs, therefore, must be regarded as essentially palliatives rather than correctives. In view of this fact, is it wise to pledge public credit in huge amounts in an attempt to offset fundamental forces that are producing a decline in business? It is scarcely conceivable, for example, that even very large expenditures on public construction in the United States in 1930 or 1931 would have halted a depression which was the product of so many world-wide maladjustments and which was being made constantly worse by mistaken economic policies in many countries, including our own, and by critical political situations in several parts of the world. In considering the wisdom of spending large amounts on public works early in a depression for the purpose of halting it, one must recognize that governments, because of ignorance or political considerations, are likely to pursue some policies which aggravate rather than relieve the depression. The conclusion is inescapable, I believe, that until governments are far better able to avoid policies which aggravate depressions, the time to begin a large public works program is not early in the depression, but only after fairly unmistakable signs of recovery have begun to appear. In view of the doubtful value of many policies which are now being pursued to produce business revival, it is fortunate that we have embarked upon the present large construction program only after business the world over seems to have turned the corner and only after fundamental recuperative forces have become so strong that even serious administrative errors are unlikely to interrupt the recovery. Obviously, it is far safer to gamble with public credit on a rising market than on a falling one.

III

Up to this point my discussion has been based on the assumption that expenditures on public works, while not affecting the causes of depressions, would at least tend to mitigate their severity by increasing the total volume of spending. It is necessary, however, to consider the possibility that a large public works program may have the opposite effect—that it may aggravate the depression by diminishing the total volume of spending. Such a large part of all buying is controlled by private enterprises and such a small part by the government that only a small increase in the disposition of business men to postpone commitments would entirely offset a large increase in buying by the government.

There are several ways in which a large outlay on public construction may cause business enterprises to reduce their expenditures. In the first place, it may cause managers to regard the economic situation as too highly artificial. As long as they view the situations in this light, they are likely to be exceedingly conservative in planning private com-

struction aggravates or alleviates a depression depends upon whether it reduces or magnifies the original maladjustments in the price structure. Now it does not necessarily follow that expenditures on public works will either increase or decrease maladjustments in price relationships, but it is highly probable that these expenditures will retard the very price changes which a revival of business requires. This is particularly true in case public construction is expanded on a large scale early in the depression.

What are the reasons for this conclusion? Depressions are a result of the fact that managers find fewer opportunities to make money by changing methods or expanding operations. Business emerges from depression when managers discover a sufficient number of new ways to reduce costs or to make money. Obviously this is very likely to require a drop in the cost of changing or expanding operations, particularly a drop in the cost of capital equipment and the labor used to install it. But it is precisely the prices which determine construction costs that are likely to be "pegged" by a large program of public building. This would be true even if the government bought everything at the lowest possible prices. It is even more true when the government makes some purchases at more or less arbitrary prices. This is well illustrated by the present public works program. The government is purchasing materials at the lowest possible price, but it is buying labor, which represents, of course, a large part of the total construction cost, at more or less arbitrary prices. In view of the fact that there is often no price for labor in the construction industry which may properly be regarded as a market price, the government is confronted with a difficult problem in fixing wages on construction jobs. The government has set a scale for skilled labor of \$1.00 an hour in the South, \$1.10 in the Middle states, and \$1.20 in the North for skilled labor. In the South, union men have been striking to get \$.75 an hour. In many places in the North, wages of the building crafts, even during the height of the building boom in 1928-29, did not reach \$1.20. Now in the midst of perhaps the worst depression in our history, the government is paying wages which exceed the boom rates in many communities.*

As a matter of fact, however, I am not particularly alarmed at the probable effect of wages under the present public works program upon the revival of business. Fortunately the program has been initiated only after nearly four years of depression, after the prices of construction materials have had time to fall, after business men have had ample op-

* The rate of \$1.20 an hour is often defended on the ground that Congress has limited the working hours on public works projects to thirty a week. If this be a justification for \$1.20 an hour, let us be thankful that Congress did not limit the working week to fifteen hours which would presumably have justified a rate of \$2.40 an hour.

portunities to discover many new ways of changing and enlarging the operations, and after a substantial shortage of some types of housing and equipment has developed. Consequently, although high wage rates on public works may discourage some private construction and even interfere seriously with the provision of cheap housing, they are not likely to have a disastrous effect upon recovery. I do, however, wish to stress emphatically the danger of pegging building materials and labor by an ambitious program of public works initiated early in a depression before these prices have had an opportunity to fall. By retarding a decline in the prices which must fall in order for change and growth on a large scale to become profitable, a huge public construction program may seriously intensify and prolong the depression. The degree of harm is likely to be greatest, of course, following a boom, such as the last one in which vigorous speculative expansion of private construction pushed up the prices of building labor and materials to high levels. For example, a large public works program in 1930, tending to peg building costs at 1928-29 levels, would have been disastrous.⁴

IV

Much of the foregoing discussion, as I have been at pains to point out, has little bearing on the present program of the government because this program was not started until after business had turned the corner. But the present program does raise interesting and important questions. Up to the present moment only about \$150,000,000 of the authorized \$3,800,000,000 has been spent. A substantial part of the three billions cannot be spent in the immediate future. It is entirely possible, however, that within the next year business will experience a revival as sharp and as sudden as that which occurred late in 1929 and early in 1933. In that event, competition by the government for labor and materials in large amounts might easily stimulate an expansion of credit and a rise in prices which could not easily be controlled. And yet the government could not stop construction without exposing many half-completed projects to ruin. In an economic system such as ours which is subject to pronounced and unforeseeable changes, government fiscal policy needs to be subject to quick reversal. Programs of public works tend to tie the hands of the government in reversing its fiscal policy and hence to weaken its ability to control booms. To a substantial extent, no doubt, the engineers can plan public works so that government expenditures can be temporarily reduced on short notice. The

⁴ Public works are often urged on the ground that they are needed to help the capital goods industries. In so far as they retard the resumption of private construction by pegging the prices of capital goods too high, their help to the capital-goods industries is temporary only.

is an economic consideration of importance which should be given great weight in selecting and planning projects.

V

In view of the difficulties and dangers connected with large expenditures on public construction, it is pertinent to compare them with another method of dealing with unemployment; namely, unemployment reserves. In three important respects unemployment reserves appear to be superior to public works—or at least to very large programs of public works. In the first place, under most schemes of unemployment reserves the public credit is not ordinarily involved and the deflationary effects which accompany the fears concerning public credit are avoided. In the second place, the disbursement of unemployment benefits does not peg the prices of capital goods and thus tend to make a resumption of change and growth unprofitable. On the contrary, it affects primarily the prices of consumers' goods and, by supporting these prices, accelerates the time when a resumption of growth is advantageous. In the third place, the disbursement of unemployment benefits automatically diminishes as business improves. Hence there is no danger that these disbursements will be an inflationary influence during periods of revival.

In one important respect, however, public works appear to be superior to unemployment reserve plans of the type usually proposed. Public works which are financed by borrowing or by using idle government balances and which do not threaten public credit or raise construction costs too much may increase the total volume of spending in the community. But when unemployment benefits are paid by selling bonds from the reserve funds, they probably have little or no effect upon the total amount of spending. They simply transfer purchasing power from the bond buyers to the unemployed. In fact, large bond sales by the unemployment reserve funds when the bond market is weak may cause serious difficulties for the banks and for corporations with large maturities to meet and thus may be a powerful deflationary influence. This defect in unemployment reserve plans is serious and has received less attention than it deserves. Fortunately it can be removed by the simple device of depositing the reserve funds in the Reserve banks instead of investing them in government securities. In this way a real transfer of purchasing power from periods of boom to periods of depression will be effected. In addition, a powerful and automatic brake will be applied to the expansion of credit in times of boom and strong support will be given to the bond market during times of depression. Operated in this way unemployment reserves are superior to public works in every respect except possibly one. Public works create jobs directly as well as indirectly. Unemployment reserves do so only indirectly.

VI

In conclusion, let me summarize some of the results of the preceding analysis and make explicit several questions which it seems to raise. To begin with, there stands out the extreme difficulty of stabilizing an economy which is conducted for profit and in which the demand for goods depends in large measure upon the rate at which business men discover new ways of making money. In such an economy private spending is bound to fluctuate violently. In view of the many obstacles to using public spending to offset fluctuations in private spending, the achievement of stability must depend upon success in greatly reducing the fluctuations in private spending. For example, it would be folly to attempt to pledge public credit in sufficient volume to offset the enormous fluctuations in spending made possible by the present relatively uncontrolled credit system.

The analysis indicates that there is no sense in talking about public works in general terms because whether a program of public construction does more good than harm depends upon how it is planned and executed and under what conditions it is applied. Public works are subject to the important limitation that they support markets but do not remove the fundamental maladjustments which precipitate depressions. And, although I reject the view that unrestrained and uncontrolled liquidation is necessary to produce the price relationships which will permit a revival of business, I stress the fact that attempts to support the market for capital goods may defeat their purpose by keeping up the very prices which must fall in order to make a resumption of growth profitable. The danger is particularly great in case the public works program is of large magnitude and is started early in the depression. For this reason, as well as to avoid the deflationary effects which follow from fear of inflation, I conclude that public works programs of the long-range planning type, constructed on the basis of the ability and willingness of the community to bear the cost, are preferable to programs of the market-supporting type and that the construction of public works should not begin until the prices of capital goods have had an opportunity to fall. Indeed, public works might be used to induce a prompter fall in these prices. The government might predicate its willingness to expand construction by a given amount upon the willingness of building labor and producers of material to accept a given reduction in their prices.

These conclusions point to the further conclusion that public works are least valuable precisely when they are needed most. They may be of great help in accelerating the revival of business—when they are least needed—but they are of little use in the early stages of the depression when things are going from bad to worse. They may be

considerable help in mitigating depressions of moderate severity, but they are of little or no help in halting a drastic decline. For example, even a very large program of public construction would not have halted the avalanche of world deflation in 1931 and early in 1932, and, by undermining public credit, it might easily have added to the avalanche. Since public works are so obviously insufficient to meet the problems of depression, something else is needed. Unemployment reserves on a nationwide basis would help, provided the financial administration were wise. They would be particularly useful in the early stages of depression when public works cannot be wisely initiated, but they would not be enough. Perhaps the only way to introduce reasonable stability into buying is to socialize a few major industries which are large consumers of capital goods. But this would not solve the problem if it resulted in too much support to the prices of capital goods—the very thing which needs to be avoided. Perhaps help would be derived from a constant tax on all industries to subsidize the production of capital goods during depressions. Or perhaps we should discard this industrial system which throws millions of men out of work whenever business managers have difficulty in discovering enough new ways to make money and should construct one which does not require the prospect of profit to keep it going. This may sound like a counsel of despair, but I confess a growing difficulty in seeing how a profit system can be satisfactorily controlled for the simple reason that the prospects for profit cannot be controlled.

MINUTES OF THE BUSINESS MEETINGS OF THE AMERICAN
ECONOMIC ASSOCIATION, HELD IN PHILADELPHIA,
PENNSYLVANIA, DECEMBER 27-29, 1938

The first business meeting of the American Economic Association was held at 9:00 A.M., December 28, 1938, in the Benjamin Franklin Hotel, Philadelphia, Pennsylvania, with Vice-President Usher presiding.

The minutes of the meeting of December 31, 1932, were approved and printed in the *Proceedings of the Forty-fifth Annual Meeting*, pp. 172-73.

The following reports of officers were read and approved:

- (1) The Secretary. (See p. 191.)
- (2) The Auditor, Mr. Deibler for Frank E. Kohler of Frank E. Kohler and Company. (See p. 198.)
- (3) The Treasurer. (See p. 197.)
- (4) The Managing Editor. (See p. 203.)
- (5) The Finance Committee, Mr. Deibler, for Mr. C. H. Crennan, Chairman. (See p. 205.)

The following report from the *Encyclopaedia of the Social Sciences* was submitted by Professor E. R. A. Seligman and accepted for the record.

It is with the greatest satisfaction that the editor-in-chief of the *Encyclopaedia of the Social Sciences* is able to report that the completion of the enterprise is now assured. After many protracted conferences with our supporters, and especially the Rockefeller Foundation and the Carnegie Corporation, we were able to secure a grant of funds which, with a great deal of sacrifice on the part of our editorial and staff force, will ensure the completion of the work.

Volume 12 will appear in the near future and the remaining three volumes are sufficiently advanced to permit of the confident expectation that they will be published approximately three month intervals. All of the articles for the three final volumes have been assigned. The comprehensive index is well under way.

Next year when the final report is presented, full figures will be given, but it is worth while to emphasize even now that although the enterprise will have cost almost double of the original estimate of \$650,000, the character of the work and the punctuality with which we have fulfilled all our promises have been able to secure for us the liberal and continued support of our benefactors.

Dr. E. E. Day read a report from the Joint Census Advisory Committee. The report was approved and ordered printed as part of the records. (See p. 207.)

Professor Walter F. Willcox made an oral report as representative to the American Council of Learned Societies. The membership is referred to the printed report of the activities of the American Council of Learned Societies which is published by that Association. The report was accepted.

Professor H. A. Millis submitted the following report from the Committee on Electoral Procedure:

This Committee was set up as a result of a resolution presented, with 127 signatures at the Cincinnati meeting (see *American Economic Review, Supplement*, March, 1934, pp. 173-74). The resolution contained a specific plan for selecting the Association officers and the members of its several committees. The decision finally arrived at when the issue was discussed is contained in the following minute (see *American Economic Review, Supplement*, March, 1938, p. 174):

"That the President in consultation with the Executive Committee appoint a committee on electoral procedure, consisting of three members.

"That this committee be instructed as follows:

- "(1) To put the plan outlined in the petition in form for submission in a referendum

"(2) If it shall see fit, to prepare an alternative plan or plans of procedure for the selection of officers for submission in referendum.

"(3) To prepare such exhibit as may be useful to intelligent voting on the referendum.

"(4) To report early in 1888 to the Executive Committee and that the Executive Committee on receipt of such report, shall arrange to conduct a referendum by mail."

The members of the Committee exchanged letters and opinions in addition to holding meetings. Working in this way it evolved an alternative plan of electoral procedure which differed in several respects from the plan contained in the resolution presented at last year's meeting. This plan the mover of that resolution accepted as a better one than the one he had presented. Hence the new plan was substituted for his and presented, along with the plan the Association has had in operation, for the mail vote to be taken by you. The instruction under which we acted seemed to require that the vote should be upon plans in their entirety. Hence no opportunity was given for voting on the different parts of the two plans.

Marked ballots were returned in the number of 782*. The canvass showed that of these, 887 were for the new, 845 for the old plan.

Several ballots carried comments and explanations of preference recorded. In addition, a number of letters were received. These notes and letters show a number of things of interest to you and to the membership of the Association. First of all, they show that some members did not vote because, with the proposal to classify the membership, they felt that they would be passing upon their own place in the Association. Next, they indicate little thought that the present procedure cannot be improved upon. Again, they show, by a few members, warm approval of the "new plan," with its proposed membership classification and other details. Finally, and outstandingly, they reveal a considerable reaction against the proposed classification of the membership—but evidently little against other changes proposed in the "new plan."

The proposal to classify the membership was inserted in the "new plan" for a number of reasons, but chiefly because it would meet the position taken by a number of members who last year declined to sign the resolution offered at Cincinnati. The vote taken does not show the feeling of the membership with regard to this point which some, as we have indicated, consider important. Only notes and letters do so. What they show has been stated above in most general terms. For your information, we note the grounds for the opposition expressed.

Some of the members, occupied as they are, object to being "demoted" to non-professional standing. Others object because of the change in class called for with change in character of employment. Then, there is the view that if classification is to be made, the rule laid down for automatic classification as "professional" is not satisfactory. A number state that some of the best economists would have to be elected by you, and they do not think this a satisfactory way for completing the classification. One member says it is discriminatory against high school teachers; another says it is undemocratic and would set up a class of "Brahmins"; and still another says that there are other degrees as valuable as that of Ph.D. Several members state that the proposed classification would discriminate against young men who have not yet attained the doctorate, a group the Association has always sought to have become associated with it. A relatively large number fear loss of membership in the Association with voting limited to the "professional" class. A few fear dissension. Finally, one or more are of the opinion that it is unfair to apply a limiting rule to those who have already become members.

We may add that only one or two members, in their comments, have protested voting by mail. A past-president, however, takes the position that only those who show their interest by attending the business meetings should have an opportunity to vote. He expresses the further opinion that any change from the present procedure would permit politics and the like to enter.

Inasmuch as a majority of those voting have expressed a preference for Plan II, we append a statement of how the by-laws might be changed in order to make Plan II effective. Of course the acceptance of any new plan rests with the membership voting in the business meeting of the Association.

Respectfully submitted,

M. A. COPELAND
F. S. DEIBLER
H. A. MILLIS, *Chairman*

* Not including four ballots forwarded after December 10. Two of these were for the old plan, two for the new.

SUGGESTED CHANGES IN THE BY-LAWS OF THE AMERICAN ECONOMIC ASSOCIATION

III. OFFICERS

The Association shall have the following officers who shall be elective officers: President, two Vice-Presidents, six elected members of the Executive Committee, three representatives on the Social Science Research Council, and two representatives on the American Council of Learned Societies. The terms of office of the President and Vice-Presidents shall each be one year. The terms of office of the six elected members of the Executive Committee and of the three representatives on the Social Science Research Council shall each be three years, two of the six terms of the six elected members of the Executive Committee and one of the three terms of the three representatives on the Social Science Research Council to expire each year. The terms of office of the two representatives on the American Council of Learned Societies shall each be four years, and one of these terms shall expire each second year. Each regular term of office shall coincide with a calendar year or a multiple thereof.

As early in each year as practicable, the President of the Association shall appoint a Nominating Committee, consisting of a former president, as chairman, and not more than five other members of the Association. The names of the Committee shall be published in the March or June issue of the *American Economic Review* with an invitation to the general membership that suggestions of nominees for the various offices be sent to the chairman of the Committee. The Nominating Committee shall be instructed to present to the Secretary of the Association on or before October 1 of each year two or more nominations for each elective office to be filled, the nominees being members of the Association.

Elective officers shall be chosen through elections to be held during the last two months of the term of office of his predecessor. Each member shall be given the opportunity to vote by mail. The results of the election shall be certified and announced by the Secretary at the annual business meeting.

The Association shall have the following officers who shall be appointed by the Executive Committee: A Secretary, a Treasurer, a Managing Editor, and a Council Secretary. The terms of office of each of these officers shall be three calendar years. The Managing Editor shall, with the advice and consent of the Executive Committee, appoint members to an Editorial Board to assist him. The President may, at his discretion and with the advice and consent of the Executive Committee, appoint a Program Committee.

The Executive Committee shall consist of the President, the Vice-Presidents, the Secretary, the Treasurer, the Managing Editor, the three ex-Presidents who have last held office, and six elected members, provided that the Secretary, the Treasurer and the Managing Editor shall not be entitled to vote in the Committee's meeting.

Professor Millis stated that owing to the feeling expressed by some of the members against the classification of members that was proposed in Plan I the Committee on Electoral Procedure had, in the interest of general harmony, decided to withdraw this proposal from its report and the proposed amendments to the by-laws had been prepared with this feature eliminated.

After brief discussion, the report and the proposed amendments were ordered put on the agenda for action at the business meeting to be held Friday, December 29, 1938.

Vice-President Usher appointed Professors Arthur Cole, of Harvard University, Frank W. Fetter, of Princeton University, and Harry D. Gideonson of the University of Chicago, as a Committee on Resolutions.

Adjourned.

The second business meeting of the American Economic Association was held at 9:00 A.M., December 29, 1938, in the Benjamin Franklin Hotel, with Vice-President Usher presiding.

The minutes of the meeting of December 28, 1938, were read and approved.

Professor A. B. Wolfe presented a report from the Social Science Research Council. (See p. 209.) The report was approved.

Professor A. B. Wolfe made a report of progress for the Committee on Research. The report was accepted and the Committee continued.

Professor J. F. Ebersole made a report of progress for the Joint Committee on Statistics of Income. The report was accepted and the Committee continued.

The report of the Committee on Electoral Procedure with proposed amendments to the by-laws was called up for action. A statement was made that the report with the amendments had been presented to the Executive Committee and that the Executive Committee had approved the amendments and that these were now regularly before the business meeting of the Association for adoption in accordance with the provisions of the by-laws for the adoption of amendments.

After considerable debate and explanations, it was moved by Professor Morris Copeland that the amendments be adopted. A rising vote was taken, with the result that 52 voted in favor and 15 against the motion. The amendments were declared adopted.

A proposal was made that since we are approaching the fiftieth anniversary of the founding of the American Economic Association a special classification be made of those members who had been affiliated with the Association for fifty years. The question was referred to the Executive Committee for action by a rising vote of 27 to 18.

The following report of the Committee on Resolutions was read:

WHEREAS, The success of a convention depends in no small measure upon elements which, though frequently taken for granted by the participants, are nevertheless vital, namely, effective preliminary preparation, and adequate hotel accommodations; and

WHEREAS, The visiting delegates to the Philadelphia Convention of December twenty-seventh to December twenty-ninth, 1933, desire to make public acknowledgment of their indebtedness to those who have been primarily responsible for the excellence of the program and facilities which the delegates have been fortunate to enjoy; therefore be it

Resolved, That the Secretary tender to Dr. S. H. Patterson, of the University of Pennsylvania, chairman of the Committee on Local Arrangements, and to his associates, the warm appreciation and sincere thanks of the officers and members of the American Economic Association for their manifold labors in preparing for our convention; and be it further

Resolved, That, in like manner, an expression of the gratitude of the Association be conveyed to our President, and to the members of the Program Committee, and the other officers of the Association, for their contributions to the success of this year's program; and be it further

Resolved, That we extend to Mr. Frank Devine, chairman of the Philadelphia Convention Bureau, our thanks for his special efforts to make our visit to his city pleasant and comfortable; and be it further

Resolved, That our thanks be extended also to the management of the Benjamin Franklin for its friendly co-operation in arranging for the necessary physical facilities for our meetings, and to the local press for the generous publicity accorded our discussions.

The resolutions were read and the Secretary was instructed to send copies in accordance with the instructions contained therein.

It was moved and carried that the Resolutions Committee be requested to

prepare an appropriate minute in recognition of the deaths of the three presidents who passed away during 1933. (See p. 212.)

Professor Francis Tyson reported for the Nominating Committee the following list of nominations:

For President: Harry A. Millis, University of Chicago.

For Vice-Presidents: Fred R. Fairchild, Yale University; Leonard Ayer Cleveland Trust Company.

For Secretary-Treasurer: F. S. Deibler, Northwestern University.

For Managing Editor: Davis R. Dewey, Massachusetts Institute of Technology.

For Members of the Executive Committee: James Bonbright, Columbia University; John H. Williams, Harvard University.

For Members of the Editorial Board: Roy Blakey, University of Minnesota; H. H. Preston, University of Washington.

For Representative to the Social Science Research Council: Alvin Hansen, University of Minnesota.

For Member of the Program Committee: Joseph Willits, University of Pennsylvania.

There being no additional nominations, the Secretary was instructed to cast a ballot, and the nominees were declared duly elected.

Adjourned.

REPORT OF THE SECRETARY OF THE AMERICAN ECONOMIC ASSOCIATION FOR THE YEAR ENDING DECEMBER 18, 1938

In order to record all of the activities of the Association for the year just closed, I am including the minutes of all meetings of the Executive Committee held within the year.

(1) Minutes of the first meeting of the 1938 Executive Committee:

The first meeting of the Executive Committee of the American Economic Association for the year 1938 was held in the Harvard Club, New York City, April 15, 1938, at 10:00 A.M. There were present: Vice-President Walter W. Stewart, presiding, and Messrs. Barnett, Deibler, Dewey, Hammond, Ise, McCabe, Mitchell, Tucker, and Wolman.

Voted: To appropriate the sum of two hundred dollars to defray the expenses of representatives on the Joint Committee on Statistics of Income.

Voted: That any further appropriations for this project should await a definite proposal from the Committee.

Voted: That H. A. Millis, chairman, Morris Copeland, and F. S. Deibler be appointed a Committee on Electoral Procedure as provided by the adoption of Professor Copeland's resolution at the last annual meeting. Cf. *Proceedings* (1932), pp. 178-4.

Voted: That A. B. Wolfe, chairman, Max Handman, and H. A. Millis be appointed as a permanent Committee on Research.

At the last annual meeting, a proposal was presented to form an interassociation committee for the purpose of making recommendation of properly qualified persons for scientific positions in governmental service. The Joint Census Advisory Committee was instructed to act for the Association in this matter. After hearing a report from the members on the Joint Census Advisory Committee, the Executive Committee voted to approve the action taken by their members in not participating in an interassociation committee for recommending persons to government appointments, and to regard this interpretation of the resolution as in accord with the policy of this Association.

Voted: To approve the suggestion that a special committee be appointed to develop plans for and to supervise an essay contest among undergraduates in American colleges and universities.

Voted: That Professor Davis R. Dewey be appointed chairman of this committee and that he be authorized to select a committee of five members to work with him on this project.

Voted: To appoint Professors James Bonbright, George W. Dowrie, Alvin H. Hansen, C. T. Murchison, and Francis Tyson to complete the Nominating Committee.

Voted: That, under the present circumstances, the Secretary be instructed to assume the responsibility of developing, in conjunction with the Program Committee, the program for the next annual meeting and that he be authorized to appoint an additional member to the Program Committee.

Voted: To elect Abbott Payson Usher as vice-president to fill the vacancy of Professor H. L. Moore.

Voted: To elect W. F. Willcox as representative to the American Council of Learned Societies, his term to expire in 1936.

Voted: To approve the selection of Philadelphia as the place for holding the 1938 meeting of the Association.

Voted: To hold the next annual meeting on December 27, 28, and 29, 1938.

Voted: To appoint Professor S. H. Patterson representative on the Committee on Local Arrangements.

The Treasurer made the following report on the financial operations of the Association up to March 31, 1938.

On recommendation of the Finance Committee, the following securities were sold:

	<i>Par</i>	<i>Cost</i>	<i>Realized</i>
Great Northern Railway	\$2,000	\$2,244.50	\$1,177.20
Northern Pacific Railway	3,000	2,895.00	2,085.80
Sinclair Crude Oil (called)	1,000	1,082.50	1,015.00
	<u>\$6,000</u>	<u>\$6,172.00</u>	<u>\$4,278.00</u>

This represents a loss of \$1,898.50 in the capital account of the Association. The membership count as of March 31 showed a loss of 127 members from the beginning of the year. The income of the Association at March 31, 1933, is \$2,054.98 less than that of the same date in 1932. To offset this loss of income, the following economies have been made. The substitution of a full sulphide paper for the 30 to 40 per cent paper that has been used in the past will yield a saving of at least \$400.00 on a printing bill. There has been a saving of \$578.00 on the *Proceedings* due to the difference in size. The cost of the annual meeting will be about \$175.00 less than in 1931. The amount of advertising in the March, 1933, *Review* is \$86.00 more than a year ago. There will be some additional savings on the composition due to a difference in the schedule of material. The total estimated savings over the 1932 figures are about \$1,340.00. If these savings are realized, they will reduce the effect of the loss of income and leave a difference of only \$558.50. This sum will be increased by the expense of the *Handbook* which will cost about \$500.00. Since we closed the last fiscal year with a net surplus \$1,656.00, it would seem that unless the loss of income for the remainder of the year becomes much larger than present estimates, the income of the Association should be sufficient to cover the operating expenses. The office is carrying on an active campaign to keep up the membership which was not done last year. Additional efforts will be made to increase the advertising income.

The Committee approved the report.

The Committee then discussed at length the plans for the program for the next annual meeting.

Adjourned

(2) Minutes of the second meeting of the 1933 Executive Committee:

The second meeting of the Executive Committee of the American Economic Association for the year 1933 was held in the Benjamin Franklin Hotel, Philadelphia, Pennsylvania, December 27, at 5:00 p.m. There were present: Vice-President Usher, presiding, and Messrs. Barnett, Delbier, Dewey, McCabe, Mitchell, and Tucker.

Voted: To approve the following actions taken by mail:

1. An appropriation covering the traveling expenses of M. A. Copeland for attending a meeting of the Committee on Electoral Procedure.
2. An appropriation for the purchase of the paper supply for the 1934 *Review*.
3. Approval of the report as drawn by the Committee on Electoral Procedure as appropriate in form to be submitted to referendum of the membership.

Voted: That the appointment of Leo Wolman as a member of the Joint Census Advisory Committee be ratified.

Voted: To reappoint George E. Barnett on the Joint Census Advisory Committee for a period of three years.

H. A. Millis and Morris Copeland were present and reported the results of the referendum ballot in reference to the change in method of electing the officers of the Association. The total number of votes cast was 782, of which 387 were for Plan I (the new plan) and 395 were for the present plan. Since there was such strong opposition expressed by some members of the Association to the proposed classification of the membership contained in Plan II, the Committee, on its own responsibility, agreed to strike this clause from the proposed change in election procedure.

The Committee submitted proposed amendments to the by-laws, incorporating the proposed changes of election procedure in a form suitable for adoption. Cf. p. 18.

Voted: That the Executive Committee approve the amendments to the by-laws prepared by the Committee on Electoral Procedure and that these amendments be submitted to the regular annual meeting of the Association to be held Friday morning, December 29, 1933.

Adjourned, to meet December 28, 1933, at 5:00 p.m.

The adjourned meeting of the Executive Committee of the American Economic Association was held in the Benjamin Franklin Hotel, Philadelphia, Pennsylvania, December 28, 1933, at 5:00 p.m.

There were present: Vice-President Usher, presiding, and Messrs. Barnett, Delbier, Dewey, McCabe, Mitchell, and Tucker.

The following petition signed by 94 persons (87 of whom were not members of the Association) was submitted to the Executive Committee:

**TO THE EXECUTIVE COMMITTEE,
AMERICAN ECONOMIC ASSOCIATION.**

We, the undersigned, seek action which will permit the organization of regional groups under the general control and guidance of the American Economic Association.

At the time of the establishment of the American Economic Association and for many years thereafter the membership was small; furthermore, there was a relatively high degree of concentration, geographically, of the active membership. Under such conditions a single annual meeting, held in some city upon or near the Atlantic seaboard or at some point in the East North Central States, provided for that "meeting of minds" and clash of opinion, the desire for which prompted such annual meeting.

With the passage of years, however, the situation has changed sharply. The number of those interested in the work of the Association has increased greatly, with the result that the number attending annual meetings is frequently so large as to imperil the fundamental purpose of the gathering—doubly so, because, the more interesting the subject under discussion at a particular session, the greater the attendance of nonmembers. Active and spontaneous participation has, in consequence, been reduced. Also the geographical distribution of membership is now so wide that it is impossible for the Association, through a single annual meeting, to render an adequate service to all—or to appeal to many prospective members whose location precludes regular attendance at this single annual meeting; teachers of economics in large areas are almost wholly deprived of the intellectual contact afforded by this one holiday gathering—and, with reductions in salaries, attendance will be made difficult for many others.

This situation is one for which we believe an appropriate remedy is the organization of regional associations. It is not our desire to substitute such regional groups for the national; rather, we believe they should be co-ordinated with it, each group offering programs in consonance with the interests and desires of the clientele served. While the time of meeting, the character of the program, and many other details will need to be worked out with care, these suggestions are offered as indicative of what may be done:

1. Time of Meeting: During the spring months, perhaps at the Easter period.
2. Character of Program: Reduction of formal papers to a minimum and more effective use of the round table, this plan offering greater possibilities because of smaller attendance.

3. Expenses: These could be held at a low level by putting the work of the regional organization upon a relatively informal basis, with costs met by a modest registration fee paid by each person in attendance.

4. Publication of Proceedings: Since the sessions themselves will be less formal, the occasion for publication will be less. Meritorious papers that come from these regional meetings will tend to find a place in one or another of the economic journals of the United States.

Through such regional meetings it is believed that constructive thought upon vital questions can be furthered, that interest in the American Economic Association can be stirred in many who are now isolated entirely or for unduly long periods from its meetings, and that enthusiasm for research can be both quickened and extended.

In this connection we desire to emphasize that our interest in regional associations in no wise indicates indifference toward meetings of the national Association at points which effectively serve the Middle West; on the contrary, we urge the desirability of scheduling alternate annual meetings in the Middle West. When an annual meeting is so scheduled, the regional meeting may advantageously be held at a city located to serve an outlying area.

To the end, therefore, that such regional organizations may be perfected at the pleasure of the Association members in particular areas and that these regional groups may function the more effectively because of experienced guidance, we, the undersigned, urge that the Executive Committee prepare an amendment to the by-laws of the American Economic Association, to be submitted at the Philadelphia meeting, this amendment to permit the organization of regional groups within the national Association and to empower the officers of that Association to co-operate with, and foster, the work of such regional bodies.

We believe that the development of regional organizations, as herein proposed, will be of great benefit to large numbers with an active interest in the field of economics. Further, we are convinced that the long-time interests of the American Economic Association will be advanced by the improved service thus accorded its membership.

(Signed) DALE YODER, *et al*

The net loss for the year was 206. This makes a total loss during the last two years of 860, which brings the number of members and subscribers to the 1924 total. This loss of membership has naturally reduced the income of the Association materially, and if it continues will soon restrict the activities of the Association.

During the year this office has devoted more time and energy to soliciting members, and it is of interest that the number of new members and of reinstatements during November and December has been very encouraging. There have been 85 new members added and 81 old members reinstated these two months.

The Secretary takes this opportunity of acknowledging his appreciation of the co-operation of the many members who have made nominations for membership, and expresses the hope that this aid will be continued during the coming year.

We regretfully report that during the year we have been notified of the deaths of the following members, and that we have had to remove their names from the active membership list:

THOMAS SEWALL ADAMS
FREDERICK KELLOGG BLUR
ARTHUR W. BRADY
ROBERT S. BROOKINGS
GEORGE CATOR
WILLIAM J. H. COTTON
HENRY WALCOTT FARNAM (Life Member)
ARTHUR S. FIELD
WILLARD CLARK FISHER
HUGH F. FOX
ALGERNON S. FRISWELL
THOMAS GIBSON
MATTHEW BROWN HAMMOND
GEORGE W. HARRIS
GEORGE E. HOLMES

CLOISE R. HOWD
RUSSELL DONALD KILBORN
OLIVER P. KIRNEY (Life Member)
J. LAURENCE LAUGHLIN
GEORGE McLEAN
ARTHUR J. MASON
A. C. PLEYDELL
MRS. JANE BANCROFT ROBINSON (Life Member)
WILLIAM C. SCHLUTER
AUGUSTUS SMITH
DE COURCY WRIGHT THOM (Life Member)
GEORGE P. WATKINS
NATHAN AUSTIN WESTON

Respectfully submitted,
F. S. DEIBLER, *Secretary*

REPORT OF THE TREASURER OF THE ASSOCIATION FOR THE YEAR ENDING DECEMBER 18, 1938

The members of the Association are referred to the report of the Auditor for a statement of the financial condition of the Association at the date of the audit. The assets and liabilities of the Association are shown in Exhibit I. The income and expenditures appear in Exhibit II.

The total assets, as shown in the Auditor's report, now amount to \$46,275.80, which represents a loss of \$1,222.70 during the year. This loss is accounted for by the loss of \$1,894.00 on securities sold on the recommendation of your Finance Committee. The value of the assets carries the investment list at cost, which is \$5,894.18 above their present market value, which represents a slight improvement during the year. The unsold copies of *Economic Essays* are also included in the assets at their cost, which amounts to \$1,214.40. The stock of unsold copies of other past publications, however, does not appear as a part of the assets of the Association, as these have been charged off yearly as a part of the printing costs for the year. The Association receives regularly a substantial income from the sales of these publications. During the last five years this sum has averaged \$668.00 per year.

The total receipts, including dues, interest, advertising, sales, and miscellaneous items, amounted to \$19,902.74, or \$1,886.10 less than for the year 1932, and \$2,464.87 less than for the year 1931. The net income from dues was \$868.85 less than for the year 1932, which in turn showed a decline of \$782.09 as compared with the year 1931. In other words, the income from dues in 1938 was \$1,645.94 below the receipts from dues in 1931. These figures portray the main source of the loss of income which the Association has experienced.

Notwithstanding the loss of income, the Association has been able to reduce its operating expenses sufficiently to offset this loss. In fact there was an operating surplus of \$1,094.58 for the present year. The accounts show a deficit of \$799.42, but this figure includes the loss of \$1,894.00 arising from the sale of securities. In addition there was an overpayment of \$184.00 last year by the Macmillan Company on the royalty account for the *Economic Essays*. This refund has increased the deficit this year by that amount.

The paper stock for printing needs of the coming year was purchased in August, prior to the September advances in prices of paper. This advance purchase saved the Association \$178.50 over the September paper prices.

The investments of the Association have had the most careful scrutiny, and while the market value of the investment list is below its cost, there has not been a single default on interest or principal during the whole period of the depression. The Association has been exceedingly fortunate in having as representatives on the Finance Committee two such able financiers as C. H. Crennan, of the Continental National Bank of Chicago, and George B. Roberts, of the National City Bank of New York. These two gentlemen have given freely of their time in watching this account and the excellent showing is due to the personal interest that each has shown in the welfare of the Association.

It will be necessary to watch both the income and expenditures of the Association during the coming year, in order to carry the activities on the present level. With the active co-operation of the membership in nominating new members, the income of the Association can be maintained and the service can be rendered by the Association to its membership.

Respectfully submitted,
F. S. DEIBLER, *Treasurer*

REPORT OF THE AUDITOR

December 18, 1933.

*Executive Committee,
American Economic Association, Inc.,
Evanston, Illinois.*

GENTLEMEN:

We submit herewith our report on the audit of the books and records of the American Economic Association, Inc., for the year ending December 18, 1933, together with the following financial statements:

<i>Exhibit</i>	<i>Name</i>
Balance sheet—December 18, 1933	I
Statement of income and expense—Year ending December 18, 1933	II

Results from Operations

For the year ending December 18, 1933, a net loss of \$799.42 was sustained. By eliminating loss of \$1,894.00 on sales of bonds, operations for the current year resulted in a net income of \$1,094.58 as compared with net income of \$1,656.11 for the prior period. A comparison of condensed statements of income and expense for the years 1932 and 1933 follows:

<i>Particulars</i>	<i>Year ending December 15, 1932</i>	<i>December 18, 1933</i>	<i>Increase or Decrease</i>
Income from—			
Dues	\$12,753.51	\$11,869.66	\$ 883.85
Interest on bonds and bank balances and dividends on stocks	2,151.20	1,923.14	228.06
Loss on sales of bonds	—	1,894.00	1,894.00
<i>Economic Essays—</i>			
Royalties	15.62	9.67	5.95
Overpayment of 1932 royalties	134.00	134.00	—
Other sources	4.51	1.89	2.62
Total income	\$15,058.34	\$11,795.86	\$3,262.48
Expenses and costs—			
Administrative and other operating expenses....	\$ 5,957.43	\$ 5,493.03	\$ 464.40
Publication costs	13,675.80	13,387.33	288.47
Publication income	6,230.00	6,185.08	44.92
Total expenses and costs	\$18,402.73	\$12,595.28	\$5,807.45
Net income	\$ 1,656.11	\$ 799.42	\$ 856.69

The number of members and subscribers on December 18, 1933, totalled 3,421 and on December 15, 1932, 3,627, a net loss of 206 members and subscribers.

Analysis of the loss on sales of bonds follows:

Issue	Par	Cost	Selling Price	Loss
Northern Pacific Railway Company refunding and improvement "B" 6's due 7/1/2047	\$3,000.00	\$2,895.00	\$2,065.80	\$ 809.20
Great Northern Railway Company general mortgage "A" 7's of 7/1/36	2,000.00	2,244.50	1,177.20	1,067.30
Sinclair Crude Oil Purchasing Company 10-year "A" 5½'s of 1/1/38 (called at 101½)	1,000.00	1,032.50	1,015.00	17.50
Totals	<u>\$6,000.00</u>	<u>\$6,172.00</u>	<u>\$4,278.00</u>	<u>\$1,894.00</u>

The reduction in administrative and other operating expenses is due primarily to the decrease of \$441.10 in annual meeting and committee expenses.

Net publication expense for 1933 of \$7,102.25, including cost of the *Handbook*, compares favorably with net expense of \$7,445.80 for the prior year. A comparison of publication income and expense follows:

Particulars	Year		Budget
Income—	1932	1933	for 1933
Subscriptions, other than from members.....	\$ 5,017.31	\$ 4,895.17	
Sales of copies	608.54	487.66	
Advertising	604.15	802.25	
Total income	<u>\$ 6,230.00</u>	<u>\$ 6,185.08</u>	
Expenses—			
Printing of—			
<i>Review</i>	\$ 5,189.41	\$ 4,650.83	\$ 5,400.00
<i>Proceedings</i>	1,819.75	1,284.85	—
<i>Handbook</i>	—	523.71	—
Editor's honorarium	2,500.00	2,500.00	2,500.00
Paid to contributors	1,451.00	1,408.25	1,500.00
Editorial clerical salaries	2,300.00	2,436.00	2,300.00
Other costs and expenses	415.14	484.69	800.00
Total expenses	<u>\$18,675.30</u>	<u>\$13,287.33</u>	<u>\$12,000.00</u>
Net expenses	<u>\$ 7,445.80</u>	<u>\$ 7,102.25</u>	

The budget prepared by the editor for the year 1933 was based on 4,100 copies; 4,000 copies of the first three issues of the *Review* were printed and 3,700 copies of the December number, with a total of 850 pages for the four issues, including advertising and index. Four thousand copies of the *Proceedings* (216 pages) and 3,900 copies of the *Handbook* (88 pages) were also printed during the year.

Changes in Financial Condition

Following is a comparison of the condensed balance sheets of the Association at December 15, 1982, and December 18, 1983:

	December 15, 1982	December 18, 1983	Increase or Decrease
<i>Assets</i>			
Cash in bank	\$ 3,404.80	\$ 4,484.14	\$1,079.3
Investments, at cost	41,184.48	36,916.71	4,267.77
Receivables, net	951.95	814.79	137.1
Inventories, at cost	1,598.62	3,743.55	2,144.9
Furniture, fixtures, etc., at cost	1,141.84	1,118.15	23.6
Reserve for depreciation	723.19	752.04	28.8
Total assets	\$47,498.00	\$46,275.30	\$1,222.7
<i>Liabilities and net worth</i>			
Accounts payable	—	\$ 16.54	\$ 16.5
Unearned income	\$ 2,270.73	2,017.67	253.0
Membership extension fund	4,524.12	4,337.86	186.2
Life memberships	5,350.00	5,150.00	200.0
Surplus—			
Balance, December 15, 1982	35,353.15	35,353.15	—
Net loss for the year ending December 18, 1983..	—	799.48	799.48
Transfer from life memberships to surplus—1983	—	200.00	200.00
Total liabilities and net worth.....	\$47,498.00	\$46,275.30	\$1,222.70

The decrease of \$4,217.77 in investments is accounted for as follows:

	Increase or Decrease
<i>Particulars</i>	
Certificate of deposit cashed	\$2,000.00
Bonds sold (detailed on page 199)	6,172.00
Stocks purchased—	
First National Stores, Inc., common.....	20 shares 1,179.30
Liggett & Myers Tobacco Company, common "B".....	25 shares 2,018.13
J. C. Penney Company, common	20 shares 756.80
Net decrease	\$4,217.77

We did not determine the market value of the investments.

All stocks and bonds are held by the State Bank and Trust Company, Evanston, Illinois, as custodian.

Inventories at the close of 1982 and 1983 consisted of:

	December 15, 1982	December 18, 1983
<i>Particulars</i>		
<i>Economic Essays</i>	\$1,219.20	\$1,214.4
Paper stock	—	2,078.92
Cover stock	184.62	287.58
Stamped envelopes	289.80	162.64
Totals	\$1,593.62	\$3,743.55

We appreciate the courtesies extended our representative during the course of the audit.

Very truly yours,
FRANK E. KOHLER AND COMPANY
Certified Public Accountants

EXHIBIT I
AMERICAN ECONOMIC ASSOCIATION, INC.

BALANCE SHEET
DECEMBER 15, 1933

Assets

CURRENT ASSETS AND INVESTMENTS:

Cash in State Bank and Trust Company, Evanston, Illinois		\$ 4,484.14	
Investments, at cost—			
Bonds, par value \$38,500.00	\$32,962.48		
Stocks	3,954.23	86,916.71	

Receivables—

Interest accrued on bonds	\$ 885.89		
Membership dues	427.50		
Review advertising	166.00		
Publication sales	80.15		
Subscriptions	80.75		

Total receivables	\$ 1,189.79		
Less—Reserve for doubtful accounts	325.00	814.79	

Inventories at cost—

Economic Essays	\$ 1,214.40		
Paper and cover stock	2,866.51		
Stamped envelopes	162.64	3,748.55	\$45,909.19

FURNITURE, FIXTURES AND BOUND

PERIODICALS, at cost	\$ 1,118.15		
Less—Reserve for depreciation	752.04	366.11	

Total assets			<u>\$46,275.30</u>
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Liabilities and Net Worth

CURRENT LIABILITIES:

Accounts payable	\$ 16.54		
Unearned income—			
Membership dues	\$ 318.87		
Subscriptions	1,704.80	2,017.67	\$ 2,084.21

MEMBERSHIP EXTENSION FUND			4,837.36
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NET WORTH:

Life memberships	\$ 5,150.00		
Surplus unappropriated—			
Balance, December 15, 1932	\$35,858.15		
Net loss for the year ending December 15, 1933 (Exhibit II)	799.48		
Transfer from life memberships	200.00	34,758.78	39,908.78

Total liabilities and net worth			<u>\$46,275.30</u>
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EXHIBIT II
AMERICAN ECONOMIC ASSOCIATION, INC.
STATEMENT OF INCOME AND EXPENSE
YEAR ENDING DECEMBER 18, 1933

Particulars	Amount	
INCOME FROM DUES:		
Regular members (after deducting \$250.75 defaulted dues unpaid at December 18, 1933) ..	\$11,579.66	
Subscribing and contributing members	810.00	\$11.86
OTHER INCOME (net):		
Income from investments—		
Interest earned on—		
Bonds	\$ 1,679.49	
Certificates of deposit	77.71	
Dividends received on stocks	108.57	
Total	\$ 1,865.77	
Less—Custodian's fee	86.13	\$ 1,829.64
Interest earned on savings and checking accounts	93.50	
Royalties on <i>Economic Essays</i>	9.67	
Profit on sale of <i>Economic Essays</i>	.25	
Miscellaneous income	1.14	
Loss on sales of bonds	1,594.00	
Refund of overpayment in 1932 of royalties on <i>Economic Essays</i>	134.00	2
Total income		\$11.79
ADMINISTRATIVE AND OTHER OPERATING EXPENSES:		
Secretary's salary	\$ 1,000.00	
Office salaries	2,846.33	
Postage	411.01	
Stationery and printing	158.73	
Office supplies	26.46	
Telephone and telegrams	64.94	
Insurance	79.10	
Depreciation	89.45	
Loss on exchange of typewriter	16.90	
Annual meeting	285.70	
Executive Committee expense	303.05	
Other committee expenses	71.63	
American Council of Learned Societies	55.00	
Auditing	50.00	
Other expenses	84.73	\$ 5,493.03
PUBLICATION EXPENSES:		
Printing of—		
Review	\$ 4,650.83	
Proceedings	1,284.85	
Handbook	522.71	
Editor's honorarium	2,500.00	
Paid for contributions	1,408.25	
Editor's traveling expenses	75.92	
Editorial clerical salaries	2,436.00	
Editorial supplies and expenses	880.75	
Sundry publication expense	28.02	
Total publication expenses	\$13,287.33	
Publication income—		
Subscriptions, other than from members	\$ 4,895.17	
Sales of copies	487.66	
Advertising	802.25	6,185.08
Total expenses		7,102.25
Net loss (Exhibit I)		12,594
		\$ 796

**REPORT OF THE MANAGING EDITOR OF THE AMERICAN
ECONOMIC REVIEW FOR THE YEAR ENDING
DECEMBER, 1933**

The cost of the *Review* during 1933 was \$11,881.07. This is approximately \$450 less than in the preceding year and less than any total since 1929. It is also about \$670 less than the budget estimate submitted a year ago; namely, \$12,000.

The number of copies printed averaged 3,925 per issue as compared with 4,250 in 1932. The number of pages in the volume just completed is 809 as compared with 792 in 1932.

The expenses during 1933 by principal items were as follows:

Printing (paper, reprints, postage, etc.)	\$ 4,606.07
Editorial	2,500.00
Clerical	2,486.00
Supplies	880.75
Contributors	1,408.25
	\$11,881.07

On the basis of printing a further reduction in the number of copies, say 3,700, the following budget for 1934 is submitted:

Printing (paper, reprints, postage, etc.)	\$ 4,800.00
Editorial	2,500.00
Clerical	2,400.00
Supplies	850.00
Contributors	1,500.00
	\$11,550.00

The following persons have served as editors during the past year: Dr. L. C. Gray and Professor M. W. Watkins, whose terms expire this year; Professors F. A. Bradford and P. T. Homan, whose terms expire in 1934; and Professors Carter Goodrich and A. B. Wolfe, whose terms expire in 1935. During the year 187 persons have co-operated in writing leading articles, communications, reviews and notes.

Owing to the discontinuance of *Social Science Abstracts* the *Review* has carried lists of titles of articles in economic journals during the past year. About 1,000 titles have been so listed. This is by no means exhaustive; but it is recognized that the space allowed is not adequate to cover this branch of service. The total number of pages given to these lists amounted to 84 for the year, or 4.2 per cent. If we endeavor to restrict the volume of the *Review* to about 800 pages, it is obvious that to include more titles it would be necessary to cut down on leading articles, reviews or lists of new books.

The usual tables are appended.

Respectfully submitted,

DAVIS R. DEWEY, *Managing Editor*

TABLE I
PAGES GIVEN TO EACH SECTION*

Year	Leading articles	Reviews	New books listed	Documents, reports, etc.	Periodical abstracts	Notes	Theses	Total
1920	395	109	155	98	122	42	15	89
1921	331	103	153	59	117	38	11	77
1922	293	91	158	35	124	37	13	73
1923	298	122	184	28	113	43	14	80
1924	339	110	191	23	113	42	13	83
1925	325	131	178	27	110	38	23	83
1926	270	137	184	15	108	43	27	78
1927	202	120	195	32	114	42	27	79
1928	335	111	176	12	121	45	23	82
1929	315	131	173	18	1	52	23	76
1930	348	154	210	12	—	53	29	81
1931	369	170	197	13	—	40	25	81
1932	351	175	203	12	—	27	24	79
1933	369	178	179	6	34	23	24	80

* Figures for 1911-19 may be found in the report for 1930, published in the *Supplement* March, 1931, p. 284.

TABLE II
EXPENDITURES

Year	Printing	Salary of editor	Payments to contributors	Clerical	Supplies	Totals
1920	\$6656.31	\$1500.00	\$1122.75	\$1595.64	\$307.20	\$11181.94
1921	5646.97	1500.00	64.50	1472.50	319.97	9003.94
1922	4795.23	1500.00	—	1370.00	314.77	7969.00
1923	5032.59	1500.00	—	1650.09	457.86	8640.54
1924	5423.23	1500.00	1110.25	1464.01	305.32	9802.81
1925	5713.01	1500.00	1133.50	1757.32	406.36	10510.19
1926	5332.24	1500.00	1123.00	1589.86	323.43	9873.53
1927	5619.20	1500.00	1013.75	1806.50	297.25	10236.70
1928	5321.95	1500.00	1190.50	1956.50	375.37	10344.32
1929	4927.62	1500.00	1323.75	2004.50	261.72	10022.59
1930	5386.67	2500.00	1447.75	2253.00	347.80	11935.22
1931	5399.94	2500.00	1454.75	2300.00	327.60	11982.29
1932	5143.23	2500.00	1451.00	2300.00	386.13	11790.36
1933	4606.07	2500.00	1408.25	2436.00	380.75	11331.07

REPORT OF THE FINANCE COMMITTEE

During the year the following changes have been made in the investment list:

	Cost	Selling Price	Loss
Sinclair Crude Oil Purchasing Company 10 year "A" 5½'s of 1/1/88 (called at 101½)	\$ 1,082.50	\$ 1,016.00	\$ 17.50
Great Northern Railway Company general mortgage "A" 7's of 7/1/86	2,244.50	1,177.20	1,067.30
Northern Pacific Railway Company refunding and improvement "B" 6's due 7/1/2047	2,895.00	2,085.80	809.20
	<u>\$ 6,172.00</u>	<u>\$ 4,278.00</u>	<u>\$ 1,894.00</u>

While this sale represents a loss of \$1,894.00, it was the opinion of your Committee that the shift would strengthen the investment account. The proceeds were invested in the following securities:

First National Stores, Inc., Common	20 shares	\$1,179.80
Liggett and Myers Tobacco Company, Common "B"	25 shares	2,018.18
J. C. Penney Company, Common	20 shares	756.80
		<u>\$3,954.28</u>

The total investment list of the Association, carried at cost or market, whichever is lower, now amounts to \$80,971.18. The market value of the list on December 21, 1988, was \$5,894.21 below cost, which represents an improvement in the market value during the year. The investments of the Association have been formally reviewed quarterly by your Committee, and have, in fact, been investigated much more frequently than this. The annual interest return from the list now amounts to \$1,679.29.

Your Committee has regarded the portfolio of the Association as an investment account. It has followed the policy of watching for stability of earnings of the issuing companies, and their ability to meet the principal account at maturity. Notwithstanding the most prolonged and serious depression in the history of our country, the Committee is glad to report that there has been no default to date of either interest or principal.

The list, at market or cost, whichever is lower, stands as follows:

\$ 1,000.00	Alabama Power Co., 1st Mtg. Lien & Ref.	\$ 570.00
2,000.00	Bell Telephone Co. of Pa. 1st & Ref. Ser. "B"	1,973.00
1,000.00	By-Products Coke Corp., 1st Mtg. Ser. "A"	595.00
1,000.00	Chicago, Rock Island & Pacific Ry. Equipment Trust Ser. "P" ..	700.00
1,000.00	City of Cleveland Water Works	920.00
1,000.00	City of New York Corp. Stock Water 4's	780.00
2,000.00	Commonwealth Edison Co., 1st Mtg. "F"	1,897.50
1,000.00	Crown Willamette Paper Co., 1st S. F.	805.00
1,000.00	Detroit Edison Co., Gen. & Ref. Ser. "D"	860.00
1,000.00	Erie R. R. Co., Ref. & Impr. Mtg. Gold bond, Series of 1980.	575.00
2,000.00	Illinois Bell Telephone Co., 1st & Ref. Mtg. Ser. "A"	2,007.50
2,000.00	Illinois Central R. R. Co., Joint 1st Ref. Ser. "A"	1,815.00
1,000.00	Louisville Gas & Electric Co., 1st & Ref.	897.50
1,000.00	National Dairy Products Corp. Gold Deb.	760.00
1,000.00	North American Edison Co., Ser. "C" Deb.	596.25
2,000.00	Northern Pacific Ry. Co., Ref. & Imp. "B"	1,675.00
1,000.00	Ohio Power Co., 1st & Ref. Ser. "D"	845.00
2,000.00	Pacific Gas & Elec. Co., 1st & Ref. Mtg.	1,980.00
2,000.00	Pacific Mills Ltd., 1st Ser.	1,700.00

1,000.00	Pennsylvania R. R. Co., 40 yr. Gold Deb.	701
1,000.00	Southern Ill. & Mo. Bridge Co., 1st Mtg. 50 yr.	504
1,000.00	Southern Pacific Co., 50 yr.	511
1,000.00	United Biscuit Co., of America, 15 yr. Deb.	981
1,500.00	United States of America Treasury	1,421
2,000.00	United States of America Fourth Liberty Loan.	2,031
\$39,500.00		

Stocks

20 shares	First National Stores	1,081
25 shares	Liggett and Myers	2,011
20 shares	J. C. Penney	751

Total \$30,971

Respectfully submitted,

C. H. CRENNAN, *Chairman*

GEORGE B. ROBERTS

F. S. DEIBLER

REPORT OF THE JOINT CENSUS ADVISORY COMMITTEE

The Joint Census Advisory Committee of the American Statistical Association and the American Economic Association held two meetings during 1933, one on March 17 and 18 and the other on September 22 and 23.

The recommendations made by the Committee at the March meeting were in substance as follows:

That there be no statistical atlas published in connection with the Fifteenth Census. That there be no publication at this time of a volume corresponding to the volume, *Mortality Rates, 1910-20*; but that a Committee be appointed to consider the form and contents of a possible substitute for that volume, and that Professor Chaddock be designated as representative of the Advisory Committee on any committee constituted by the Director for that purpose.

That new life tables be prepared on the basis of the 1930 census.

That the decennial inquiry regarding taxation, public indebtedness, revenue, and expenditures be published under the title of *Financial Statistics of State and Local Governments* instead of *Wealth, Public Debt and Taxation*; and that no estimate of the total national wealth be included in that inquiry. Without specifically recommending that the inquiry, like that of 1922, include a digest of state tax laws the Committee expressed the opinion that the inclusion of such a digest would add materially to the value of the report.

The Committee passed the following resolution in favor of having a mid-decennial census of population:

WHEREAS, There have been extensive and unusual movements of population from one area in the United States to another since the 1930 census, and very great changes in the rate of population increase by reason of the cessation of immigration and the decline in the birth rate, so that it is no longer possible to make the usual annual estimates of population for states and cities with any satisfactory degree of accuracy; and

WHEREAS, It is essential to know the number of persons living in the various states, cities, and counties year by year, in order that reasonably accurate rates may be computed for births, deaths, and morbidity, and for financial items such as governmental expenditures; in order that proper provision may be made for the expansion of public utility services; and for other reasons; be it

Resolved, That a simple mid-decennial census of population should be taken either late in 1934 or early in 1935, this census of population to be limited to basic items, like sex, color or race, age, marital condition, and urban, rural, or farm residence.

At its September meeting the Committee was called upon to consider mainly the printing situation in the Census Bureau, the plans for the 1933 census of manufactures, and certain problems which had arisen in relation to the compilation of vital statistics.

Because of a cut in its printing allotment, the Bureau of the Census had been compelled to suspend the printing of the Fifteenth Census Reports and either to omit certain of the annual publications or to combine two years in one report. In view of this situation the Committee passed the following resolution:

Resolved, That the Census Advisory Committee is greatly concerned to learn that owing to the fact that the funds allotted for printing are about 50 per cent below the amount asked for and as estimated as necessary, the Bureau has been compelled to abandon or postpone indefinitely the printing of some of the reports which will be completed ready for publication in the current fiscal year and to curtail very materially the scope and detail of others. It is obvious that in so far as the statistics which the Bureau compiles and tabulates cannot be printed, the money expended on their collection is wasted. Either the Bureau should be provided with funds sufficient to print the results of the statistical compilations which it is authorized or directed

by law to make, or else the scope of such compilations should be reduced to come within the limits imposed by the funds that will be available for printing the results.

The Committee therefore recommends that steps be taken to secure, if possible, supplementary funds for printing the current reports; and looking to the future that an organized effort be made to do away with the present practice of making a separate appropriation for printing as applied to the work of the Census Bureau and to include the cost of printing in the appropriation granted directly to the Bureau for carrying on the statistical inquiries which it may be authorized or directed by law to make.

Since the above resolution was passed by the Committee, funds for completing the printing of the Fifteenth Census Reports have been supplied by the Civil Works Administration. But the funds available for printing of current reports are still quite inadequate.

As regards the vital statistics work the immediate and most urgent question was that of allowing the New York State Health Office to supply the Census Bureau with punched cards for the transcription of mortality data in place of handwritten transcripts. After consideration of this and other questions relating to the compilation of vital statistics the Committee passed the following resolution:

Resolved, That provisionally and as an experiment arrangements be made with the New York State Health Office authorizing the use of punched cards for transcribing death data, provided this method of transcription is permissible under the existing law; and

Resolved, That Dr. Chaddock be requested to serve as a Committee of One to make a preliminary study of all phases of the present situation regarding the collection of vital statistics and report to the Advisory Committee at as early a date as possible.

As regards the plans for the 1933 census of manufactures, the Committee was called upon to consider especially the situation which existed as a result of the cut in the appropriation for field work, which would make necessary a considerable curtailment in the scope and detail of that census as compared with prior censuses. The committee passed the following resolution:

Resolved, That it is highly desirable that the census of manufactures be taken for 1933 and that the information should be properly comparable with that of previous censuses. The Committee finds that it will be impossible to attain this result unless additional funds are made available for necessary field work in connection with the census. The Committee therefore strongly recommends that appropriate measures be taken to secure the restoration to the Bureau of the Census for this purpose of \$115,000.

The Bureau has now been informally assured that additional funds for the field work of the census of manufactures to the amount of \$115,000 will be supplied from the Budget, thus making it possible to conduct a field census which will secure information properly comparable with that of previous censuses, although the amount of production detail on the special schedule will be materially reduced.

Respectfully submitted,
E. E. DAY, *Chairman*
L. WOLMAN
G. E. BARNETT

REPORT OF ACTIVITIES OF THE SOCIAL SCIENCE RESEARCH COUNCIL

The emphasis of previous years on the integration of the work of the Council, including concentrated planning in selected areas of work, has been continued, but in addition there has been a new emphasis, largely the out-growth of the current national emergency, on efforts designed to relate the materials and methods of the social sciences to the problems and plans of national recovery.

The major Council activities in the field of industry and trade during the past year have been concerned with (1) the further development of long-range plans, (2) the adaptation of certain phases of this long-range planning to an emergency research attack on the immediate economic situation and recovery efforts, and (3) the initiation of strategic projects in furtherance of both (1) and (2) above. Planning in the field of international relations directed primarily toward the development of a co-ordinated approach to mutual problems by different national groups has been continued. In the area of personality and culture, a canvass of present types of research in the field was completed. The Council's interests in the area will be furthered by continuing committee activity dealing with the problems in personality and culture that have to do with the degree of completeness with which an individual progressively adjusts to his cultural situation.

The Committee on Government Statistics and Informational Services, a joint committee of the American Statistical Association and the Social Science Research Council, has been amply financed for effective work during the period of a year. This Committee has been very actively at work in Washington for the past six months. Great competence has been shown in establishing and maintaining highly satisfactory relations with the responsible officials of the government. The work of the Committee will redound to the credit of the Association and of the Council. That result has already been substantially accomplished; and its essential basis is the wisdom of the Committee in making no claims to credit for itself or its parent bodies, but rather in giving all credit to the officials who take the responsibility for making its recommendations effective.

The Committee on Social Statistics, with its interest in the improvement and availability of federal and state census materials, has been associated in an advisory capacity with the work of the joint committee of the American Statistical Association and the Council in Washington. Provision has been made for aid and advice to the Bureau of the Census in segregating materials for preservation and for distribution. Provision has been made for financial support of the work of the Census Advisory Committee. At the request of the Director of the Census, the Committee on Social Statistics has undertaken to examine the broader aspects of the government's handling of vital statistics.

The Joint Committee on Materials for Research of the American Council of Learned Societies and the Social Science Research Council has acted as an advisory committee in its field to the parent Councils, has conducted three

surveys in the fields of availability and preservation of research material and has formulated plans for the exploration of the whole area of material for research.

The Committee on Social Science Personnel concluded its inquiries concerning the recruitment and training of research personnel in the social sciences. After the presentation of its final report to the Council in September 1988, its functions were transferred to the committee charged with the duty of making fellowship awards, and the name of this latter committee, now charged with the dual duty of developing the Council's personnel policies and of making all fellowship awards, was changed from the Committee on Research Fellowships in the Social Sciences to the Committee on Social Science Personnel. Instructions were given by the Council to formulate plans providing for the continuation of the present post-doctoral fellowships in accordance with existing policies and procedures, and for the initiation of two new fellowship series, one at the first year graduate level and a second at about the third year graduate level, that is, for candidates who have completed all requirements for the Ph.D. except the dissertation. While the basic purpose of both these new fellowship series is the development of research personnel by providing training opportunities, fellowships at the first year graduate level are also designed to be an aid in the recruitment of superior students into social research, and those at the later stage are particularly intended to offer opportunities for field work supplementing more formal graduate instruction.

Eighteen fellowships, including three reappointments, were awarded for 1988-89.

Forty-two grants-in-aid were made to assist mature scholars to bring to completion research projects already well under way at the time of award.

The Committee on Social and Economic Research in Agriculture has completed the major portion of its survey of research in agricultural economic and rural sociology in the United States as planned. Its main activities during the past year have been directed to the improvement of the quality of research in the field through the improvement of facilities for research training, the development of research methodology, and through increased availability of research materials. Considerable attention has also been given to problems involved in the effective co-ordination of research activities and the planning of research in the rural field.

The temporary Committee on Research in Social Aspects of Medicine submitted a report expressing the conclusion that there is an opportunity for useful investigation of the social aspects of medicine, and that the Council might serve in this field in a constructive manner.

The Pacific Coast Regional Committee gave much of its attention to an inquiry into the ways and means for making its work most effective. There is increasing evidence of the need for and of the benefits from closer contact between institutions and between social research personnel on the Pacific Coast, and it is with this in mind that the regional committee in that area is developing its program. The Southern Regional Committee has continued to be actively interested in the development of research and research person-

nel in the South through the initiation or encouragement of strategic research projects and by means of conferences, planning advice, and publications.

Commissioned by the Council in 1981 to investigate the possible importance of propaganda as a field of concentrated research, the Committee on Pressure Groups and Propaganda has amplified its knowledge of the function of propaganda in modern civilization and surveyed the existing state of research and publication. Plans looking toward the further development of research in the field have been prepared and submitted to the Council.

Respectfully submitted,

A. B. WOLFE

M. HANDIMAN

H. A. MILLIS

SPECIAL RESOLUTIONS

Three former presidents of the American Economic Association passed away during the year 1938. The Association takes this opportunity to express its profound sorrow at the passing of Professors Adams and Farnam of Yale and Professor Hammond of Ohio State. All made substantial contributions in the fields of teaching, scholarship, and public service.

Matthew Brown Hammond died in Columbus, Ohio, on September 28 1938. Professor Hammond was born in South Bend, Indiana, on June 18 1868. He was graduated from the University of Michigan in 1891 and two years later received the M.L. degree from the University of Wisconsin. Subsequently he studied in Germany at the Universities of Tübingen and Berlin and received his Ph.D. from Columbia University in 1898.

Professor Hammond began his teaching career as principal of a secondary school in Missouri. He then became acting assistant professor of economics at the University of Missouri, and from there went to the University of Illinois as instructor, and later as assistant professor of economics. From 1904 until his death he taught at Ohio State University, first as assistant professor, and after 1908 as professor of economics. From 1921 to 1928 he served as head of the department.

In addition to his university activities, Professor Hammond had a distinguished career of public service. He was instrumental in drafting labor legislation in Ohio, and served as secretary of the Coal Mining Commission of that state. He was a member of the Industrial Commission of Ohio from 1911 to 1915, and of the Health and Old Age Insurance Commission from 1917 to 1919. He acted as labor adviser to the United States Food Administration during the World War, and as a member of the War Labor Policies Board. He was technical adviser to the United States Anthracite Coal Commission.

Professor Hammond was president of the American Economic Association in 1930, and gave generously of his time to the numerous committees of the Association. He co-operated in the work of the Social Science Research Council and the American Association for Labor Legislation.

Professor Hammond's book on *The Cotton Industry*, which appeared in 1897, is a standard work in its field. In 1911 he brought out *Railroad Rate Theories of the Interstate Commerce Commission*, and in 1919, *British Labor Conditions and Legislation During the War*. He was a frequent contributor to economic journals. A diligent student, an inspiring teacher, and an invaluable counsellor, Professor Hammond's absence from the ranks of American economists will be sorely felt.

Henry Wolcott Farnam died in New Haven, Connecticut, in his eightieth year. Professor Farnam was born in New Haven on November 6, 1858. He was graduated from Yale in 1874 and two years later received the A.M. degree from the same institution. He continued his studies abroad at the Universities of Berlin, Göttingen, and Strasburg, and in 1878 he returned to Yale.

as tutor. In 1880 he was appointed professor of economics, and served in this capacity until 1918, when he became professor emeritus. In 1914 he was named Roosevelt Professor at Berlin, but the War prevented his going to Germany. In 1982 Yale University honored him with the LL.D. degree.

Professor Farnam's interests were manifold and his career distinguished. In addition to his academic work at Yale, he gave largely of his thought and energy to social service. He was chairman of the New Haven Civil Service Board, and a member of the Connecticut State Commission of Sculpture from 1887 to 1909. For more than twenty years he was president of the Connecticut Civil Service Association, and also served as president of the New Haven Hospital. He organized the Lowell House, which was the first social settlement in New Haven, and headed the Connecticut Training School for Nurses. He was president of the Morning News Company, publisher of the first politically independent newspaper in New Haven.

Professor Farnam's academic interests were of wide scope. He was president of the American Economic Association in 1911 and president of the American Association for Labor Legislation from 1907 to 1910. He was a fellow of the American Academy of Arts and Sciences, and a member of the supervisory committee of the *American Year Book* from 1910 to 1930. He was one of the editors of the *Yale Review* from 1892 to 1911 and was on the editorial board of the *American Economic Review* in 1911 and 1912.

Professor Farnam's written work covered a wide range of economic and political studies from the ancients to the present. He wrote equally well in German and in English, his longer works including: *Die Innere Französische Gewerbepolitik von Colbert bis Turgot*; *Deutsch-Amerikanische Beziehungen in der Volkswirtschaftslehre* in Schmoller's *Festgabe*; and *Shakespeare's Economics*. Both by his writings and by his public service, Professor Farnam had won a place of distinction in American affairs.

Thomas Sewall Adams died in New Haven, Connecticut, on February 8, 1938. Professor Adams was born in Baltimore, Maryland, on December 29, 1878, and was graduated from Johns Hopkins University in 1896. In 1899 he began his long career of public service as clerk in the Census Bureau. The following year he was named assistant to the treasurer of Puerto Rico. After serving one year in that capacity, he joined the faculty of the University of Wisconsin.

At Wisconsin, state duties absorbed much of Professor Adams' attention. He drafted many of Wisconsin's tax laws and served on the Tax Commission from 1911 to 1915. In 1916 he was appointed professor of political economy at Yale University and held this position until his death. In 1917 President Wilson appointed him adviser to the Treasury Department, and in this capacity he frequently appeared as the Treasury's spokesman before Congressional hearings. Professor Adams' knowledge of his subject was broad and penetrating, and his judgment of the highest quality. He was a staunch opponent of Treasury surpluses, and frequently reiterated the dangers of Congressional extravagance presented by such surpluses.

Professor Adams was president of the American Economic Association 1927, president of the National Tax Association in 1922 and 1923, and from 1929 until his death served as a member of the fiscal committee of the League of Nations. He made extensive contributions to economic scholarship, particularly in the fields of taxation and labor. In addition to numerous articles he was the author of *Taxation in Maryland*, *Labor Problems*, *Mortgage Taxation in Wisconsin and Neighboring States*, and a translation of Levasseur's *American Workman*. Always honest and sincere of purpose, Professor Adams allowed no bonds of friendship to stand between him and a forceful expression of his opinions where he found occasion to differ with others on public issues. In his premature passing, the world of American economics and public affairs suffered a great loss.

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1934

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